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SOMNAMBULISM.

BY

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In sound sleep, all the functions of the brain and spinal cord except those connected with the maintenance of life itself are in abeyance. The order in which the various functions are lost is: (1) loss of the higher mental faculties, (2) of the motor functions, relaxation of muscles, and (3) loss of common sensation and of the special senses. They are awakened in the reverse order: the sensory faculties may be readily aroused into activity in light and fairly easily even in sound sleep. This is no doubt a remnant of the ancestral condition in which man had at all times to be on the alert against hostile attacks.

When sleep is disturbed by dreams, the course of events is as follows: The dream may be caused by some stimulus extrinsic to the brain: for instance, a loud noise may be the starting point for a long series of exciting events, a neuralgic pain suggest the stab of an enemy's knife, or a fluttering of the heart from imperfect digestion of a hearty supper a fall from a precipice (other instances will occur to everyone); or, on the other hand, a dream may arise in processes of ideation started in the

brain itself. In dreaming, a long series of illusions is gone through—figures and scenes pass before the eyes, imaginary sounds are heard, conversations carried on, speeches made and actions performed, but here the process stops; although a long train of associated images of memory may be aroused, no muscular or other action follows. Sensation, or rather ideation, gives rise to illusion, but illusion does not result in action. Occasionally the illusion of a simple dream may lead to action, but when a movement takes place the dream comes to an end and the process is abruptly interrupted by the sleeper awaking.

In the most vivid dream I have had of late years, I thought the candle was setting fire to the bed-curtains, and awoke to find myself sitting up in bed, blowing vigorously and shouting "Blow it out!" In the state intermediate between sleeping and waking, hallucinations are prone to occur, but, as in dreams, are rarely followed by action—or if movement does result it puts an end to them; and in some conditions of extreme fatigue there is a state in which the mind is active, sensitive to impressions from without, or in other words able to appreciate all that is going on around it, but there is a feeling as if it were separated from or had lost control over the limbs, which are in a state of general relaxation.

If, without awaking the dreamer, the motor centres are put in action by the illusion of the dream, the condition of somnambulism is arrived at. An exceptionally vivid dream is the motive-power which gives rise to hallucination, and this in its turn prompts to action: a sensory image of memory gives rise to an illusion, this illusion is acted upon, and the process goes a step further than in dreaming and calls into play the motor centres. Somnambulistic actions are of all grades, from the simple to the most complex. Note first that the sleep-walker's energies are entirely absorbed and dominated by an extremely vivid illusion, under the influence of which his actions are concentrated, to the exclusion of all other objects, upon the accomplishment of some deed suggested by it. His attention being thus wholly taken up, he is like a man in ordinary life who is engaged in some absorbing pursuit which renders him oblivious to all else that is going on around him.

The well-known instance of J. S. Mill, who composed his *System of Logic* during his daily walk from Kensington to the India House, passing along the crowded streets with an air of total pre-occupation but never colliding with the lamp-posts or with other walkers, is a case in point. Similarly, a soldier may not know he has been wounded until after the excitement of the fight is over. The somnambulist presents the same state in a still more perfect form; all his faculties are more completely concentrated on one object than in any other mental condition with which we are acquainted. Because, however, the somnambulist may be touched, spoken to, and even carried to bed, without perceiving it, we must not jump to the conclusion that touch and the other special senses are for the time in abeyance. In most somnambulists the visual and tactile senses at any rate seem to be preternaturally acute; but all the senses are directed only to one special aim, and are acute only when used to this end. The field of perception as a whole is narrowed, but in one particular direction is exalted: it loses in range, but gains in intensity in that sphere in which it is retained. In short, the sleep-walker is "possessed" by one idea dominating all his actions. I shall only briefly allude to the actions carried out during sleep-walking, as everyone is more or less familiar with them. A sleep-walker may get out of bed, walk on the parapets of houses or along narrow ledges in situations in which in his ordinary state he would become giddy and fall. He may come to a river and swim across it, avoid obstacles and dangers, and pass through the most difficult places in safety: the concentration of the mind upon the desired object is so complete as to inhibit the feelings of timidity or terror which under ordinary conditions would arise and paralyse his will-power.

He may not only feel no fear, but also fail to recognise that certain actions are impossible, and so sometimes walk out of a window and be dashed to pieces, or, being unable to swim, be drowned in the stream into which he has passed. Such accidents would presumably be most likely to occur in imperfect states of somnambulism, when the perceptive centres are not fully aroused, and in which the sleep-walker walks along with his eyes closed.

The actions performed are often so complex and so difficult of accomplishment, and the component muscular movements so suitably co-ordinated and adjusted thereto, that one must conclude that their successive stages are as a rule realised by the sleep-walker. Sensations must reach the highest cerebral centres and be perceived; the manner in which they are acted upon presupposes judgment and even intelligent choice.

A further point is that the same person in the somnambulistic state almost invariably performs the same actions. A certain automatic regularity attends all the movements—so much so, that an observer who has frequently watched the sleep-walker can predict exactly what the latter will do next, and the stage at which he will return to bed. Shakspere well knew this, and also the complicated actions that may be gone through, when he makes the attendant say of Lady Macbeth: "I have seen her rise from her sleep, throw her night-gown upon her, unlock her closet, take forth paper, fold it, write upon it, read it, afterwards seal it and return to bed,—yet all this while in a most fast sleep." Another instance is that of a woman who invariably gained the roof of the house, walked along the parapet of that and the adjoining houses, carrying her pillow in her arms and holding it as if it were a baby. Another woman always got up and prepared a poisonous potion by putting matches in a glass of water; and so on.[1]

It is interesting to note in connection with this repetition of the phenomena of the attack that simple dreams frequently recur in the same way, and are identical in all their details. No doubt the sameness of the somnambulistic acts is to be accounted for by the recurrence of one particular dream.

Personally, I have two dreams which recur at intervals of one or more years. In one, I am walking about in a town full of the ruins of the most beautiful Gothic churches; in the other, I am in a place which remotely resembles Lynmouth and Lynton. The streets and buildings in these dream-places are always exactly the same, so that I seem to be walking about in a place quite familiar to me and in which I have no difficulty in finding my way. I have never been able to recall any place that I have

[1] *Dictionary of Psychological Medicine*, 1892, Art. "Somnambulism."

actually seen that exactly corresponds to these dream-places, but they may be memories of photographs or pictures.

As to the various functions of the nervous system in the somnambulist, the eyes may be open[1] or closed, generally the former, and the sense of vision as a rule seems to be acute. Hearing may be absent or present. Touch is generally preternaturally acute, but is said to be sometimes absent, so that the somnambulist has been carried to bed without awaking. As indicated above, I doubt whether this proves the sense of touch to be absent, but would rather consider that just as the mind is exclusively bent on achieving the action prompted by the illusion and is oblivious of all beside, so the special senses are acute in aiding the carrying on of any action which leads to the desired end—*e.g.* in avoiding obstacles, etc.; but at the same time, there may be no perception of any sensory stimuli outside this.

There is no doubt of the activity of the intellectual processes in somnambulism. It has been proved that children have learned their lessons whilst in the somnambulistic state and repeated them correctly the next day. Speaking, singing, and playing on musical instruments may be successfully accomplished.

The only constant and essential sign of somnambulism is the forgetfulness of all that has passed during the period of somnambulism, however complicated the actions may have been.[2] The vivid dream, however, which preceded the somnambulistic state may sometimes be recalled on waking, and then connected with the particular deed done during sleep.

Now, we have to meet the very interesting question as to whether the somnambulist's actions take place without his being conscious of them, without his knowledge,—are, so to say, more or less automatic; or whether he is at the time fully conscious of his own actions, although not altogether of his surroundings, but afterwards forgets all that has occurred in

[1] Thus Shakspere makes the doctor say: "You see her eyes are open;" and Lady Macbeth's maid reply: "Ay, but their sense is shut."

[2] See Janet, "Quelques définitions récentes de l'Hystérie," in *Arch. de Neurol.*, vols. xxv., xxvi., 1893; and Azam, *Hypnotisme et Double Conscience.* 1893, p. 151.

the somnambulistic state. The answer to this question I shall defer for a few moments.

A further point about somnambulism is, that there is good evidence that in a return of the somnambulistic condition the memory of the events that took place during previous attacks is most often preserved, although completely lost in the waking state. This is analogous to the condition in the "recurrent dreams" mentioned above, and is also found in what is called induced somnambulism—that is, a condition essentially resembling sleep-walking in its main features which can be evoked in a suitable subject by hypnotic suggestion (mesmeric trance). I cannot enter upon the subject of hypnotism, but note in passing that in induced or hypnotic somnambulism all the faculties of the mind are wholly under the control of an outside influence—that of the operator; whilst in spontaneous somnambulism they are under the domination of an intrinsic influence—that of the vivid hallucination or dream. This I take to be the main point of difference between the two states. In induced as in spontaneous somnambulism, after the desired action or speech has been accomplished all further memory of them is lost; but when the subject is subsequently hypnotised and again enters the somnambulistic state, he has a more or less complete remembrance of all the events of the former somnambulism, but of none of those of his normal life. He may thus have two existences—the first or normal, and the second or somnambulistic one,—each with its special memory for what takes place in its own recurrent phases, and absolute want of memory for the events of the other state.

Dr. Azam[1] traces stages between this secondary condition and ordinary sleep. Thus, he says, if a mother speaks gently and in a monotonous tone of voice to a child of eight or ten years, wrapped in the sound slumber of that age, the child does not awake, but answers. One can often direct his thought at will and get the child to say what in his waking state he would not have revealed, cause him to turn in his bed, drink, &c. In some persons this condition is still better developed; thus, there is the well-known case of the

[1] *Op. cit.*, pp. 151–153.

naval officer whose friends were able to suggest dreams to him, and who, sleeping on a bench, precipitated himself on his head on the ground, under the idea that he was diving into the sea to save a friend from drowning. A still further development of this secondary state is reached in the many cases now authenticated of persons who pass spontaneously, or at any rate without any cause that can be recognised, into a condition lasting for a variable length of time, in which their mental and moral characteristics and consequent actions become changed; after a time they again return to their normal mental condition. These cases have been rather absurdly called cases of "dual personality"—of "double consciousness." Stevenson in his *Dr. Jekyll and Mr. Hyde* has made use of this curious state in a very striking way.

We might if we pleased speak in the same way of a person subject to ordinary attacks of sleep-walking as possessing two existences or personalities, the abnormal one being of short duration as compared with well-marked cases of "double consciousness." In both cases there occurs an interference with the normal processes of association in the brain during the attacks, by which certain nervous processes are isolated from the rest, but closely bound up with each other, sometimes in an abnormal or unaccustomed connection. Further, these are the only processes of cerebration carried out whilst the condition lasts. But because, on account of interference with the ordinary processes of association, certain mental processes, habits, thoughts, feelings, and the like, are more closely associated with each other than usual, and at the same time isolated from other similar mental processes with which they would as a rule be connected, we can hardly correctly speak of them as constituting a new or secondary personality, and therefore the expression "dual personality," implying as it does that two persons exist side by side in the same individuality, is misleading, unless we carefully keep in mind what is really meant by it. The phenomenon is rather one of inhibition of particular mental activities with persistence of others, and is based on lapses of memory.

These cases of double consciousness differ from those of the

hypnotised subject in whom alterations of the personality can be produced by suggestion, in that they occur spontaneously, or rather without our being able to ascertain the cause. Sometimes we can ascertain it: thus, one man used to dream periodically that he must go at once into a neighbouring town, and next morning, after carefully searching through the places where his wife was accustomed to conceal her money, he went off, abandoned his family, indulged in a bout of drinking, and generally ended by recovering from his abnormal state to find himself in gaol. In this case the influence of the illusion of his dream went further than it does in somnambulism and affected his waking life. This is analogous to the cases of persistence of a suggestion made during hypnosis into the post-hypnotic state.

One of the most celebrated cases of double consciousness is that of Félida X. At the age of 14 this woman began to pass into a secondary state characterised by a change in her disposition and character. During the secondary state she remembered the first state, but on emerging from it into the first state she remembered nothing of the second. At the age of 44, this secondary state, superior in quality to the first, had become more frequent and prolonged, and occupied most of her life. During it she remembers most of the events of her past life, but when she returns into the first she is completely oblivious of all that has passed during the secondary state; and this is often very distressing, as when the transition took place in a carriage on her way to a funeral she could not remember which of her friends was dead. She actually became pregnant during one of her early secondary states, and on recurring to the first had no knowledge of how it had come to pass.[1] Many other instances will doubtless be familiar to the reader. The difference between the mental, moral, and often physical characteristics of the two alternating states is generally in such cases marked enough for the relations or intimate friends to be able to recognise in which condition the patient is.

There are allied states, however, perhaps most often connected with epilepsy, which still more nearly approach the

[1] This case will be found in full in Dr. Azam's book quoted above, and there is an abstract of it with critical remarks in Prof. James's *Principles of Psychology*, vol. i., pp. 380 and 384, where also other similar cases are given.

condition of spontaneous somnambulism. Persons pass without warning into a secondary state of which they have no memory afterwards, and of whose existence they would have no idea were it not for the gaps thus caused in their lives of which they can give no account. This condition is spoken of as "ambulatory automatism," and it cannot be recognised by any external manifestations, as the presence of the secondary condition in cases of secondary consciousness can, *i.e.* by changes in the character, disposition, or mental condition of the person affected. For in ambulatory automatism the minor daily actions of life are carried on as usual, and there is nothing to betray the existence of an abnormal state. I will quote one instance from Charcot:[1] An agent (A. B.) for a firm in Paris who was accustomed to take round curios for sale, arrived at a client's house in a street in Paris, in the course of his daily round, at 8 p.m. on 18th January. As he did not return to his carriage after some time, the coachman on inquiry finding that he had left the house, returned to the office and advised the principals of their agent's disappearance. From January 18—26 there is a complete gap in A. B.'s memory, but on the 26th he found himself on a bridge in a city strange to him, whilst a military band was passing at the time which might have awakened him. Not liking, for obvious reasons, to ask the name of the town, he inquired his way to the railway-station, and there saw that he was at Brest, a place in which he had never been before, and with which he had no business relations. He found that his clothes were clean and well-kept, his shoes not dirty or worn, so that he could not have travelled the 200 miles on foot, and his general condition was such that he must have had proper food and accommodation during the time; he also discovered that he had spent about £8 in the interval. Much disturbed in mind, and fearing the condition might return, he foolishly confided his story to a gendarme, who promptly concluded he was a clerk absconding with his master's money, remarked that "it was a very fine story" and took him to the lock-up. The man had had other attacks of the same kind, and similar cases are recorded. There was

[1] For full account see *Leçons du Mardi à la Salpêtrière*, 1890, pp. 303 et seq.

absolutely no reason to doubt the man's *bona fides*. Now, the eight days had completely dropped out of the man's life, he had absolutely no memory of them, and yet during all this time we know from his condition that he must have taken food and drink, have slept, have obtained shelter, have paid for all these things, have taken his railway-ticket, and all the time have conducted himself like an ordinary person; at any rate, if he had done anything extraordinary he would certainly have returned to his normal state to find himself in the hands of the police or in a lunatic asylum. The man was perfectly sane and intelligent, and there was no evidence of brain disease.

When we consider the many complicated mental processes which must go on to enable A. B. to take a long railway journey of this kind, to carry out at least the ordinary daily actions of life in an ordinary way without exciting remark, we must conclude that whilst in this state he was in possession of his ordinary faculties, and that all his actions were attended by consciousness. It is impossible to understand how it could be otherwise, how consciousness could be absent under such circumstances, and we can only conclude that there was a complete loss of memory for the events of this second state when he returned to his normal condition. If, however, he could have been seen and conversed with during a recurrence of this secondary condition he might have remembered all the events of former secondary states, and been wholly oblivious of those of his ordinary life.

A similar instance came under my own observation, the cause being probably a slight blow on the head; injuries to the head of all degrees of severity are known to produce this condition, without there being any reason to suppose that any structural damage to the brain occurs. A youth of 18 asked leave from his master one afternoon to return home as he felt indisposed, and it then came out that he had a complete lapse of memory for all that had occurred since the morning. From after breakfast to after lunch his memory was a complete blank, except that he remembered eating some apple-pie. He conducted himself during the morning quite as usual, except that he asked one or two rather trivial questions. He told his comrades on

arriving at the office that he had slipped in the snow, and fallen five or six times on his way down. He gave two messages quite correctly to his master, who came in after him. There was no sign of injury or contusion, and his clothes showed no evidence of a fall. He rode a part of the way to the office in a 'bus, and went into the restaurant to which he was accustomed to go, selected and ordered his dinner and chose his seat. In hailing the omnibus and leaving it at the proper place, in getting his dinner at a crowded restaurant, and in doing his office work as usual, he must have gone through a number of complicated actions involving the exercise of all his mental faculties, and have done all this in such a way as not to excite remark or to lead to any suspicion that he was otherwise than in his usual condition.

The condition in these cases is closely allied to somnambulism, and I think affords us an answer to the question I raised earlier—namely, that a person during sleep-walking is conscious, can see, hear, and feel, and form more or less accurate judgments from his perceptions as to the actions best adapted for attaining the end he has in view, but on awaking completely forgets all that has passed during the somnambulism; and although the sphere of this consciousness in the somnambulistic state is limited, there is no ground for the assumption that the actions are sub-conscious, and take place without bringing into activity the higher cerebral centres.

To discuss very briefly the physiology of these allied states. Taking the three grades of nerve centres as—(1) spinal, for simple reflex actions; (2) basal, for more complex reflex activities carried on without consciousness—*e.g.* respiration, deglutition, regulation of heart-beats,—and, according to some, for such activities as speech, swimming, and walking, after these actions have been thoroughly acquired. On this view, they must generally be started on each occasion by a voluntary impulse from (3) the highest cortical centres in the brain, the actions of which are as a rule attended by consciousness. I say as a rule because, although all activities, mental or muscular, which are either novel or require delicately adjusted co-ordinated movements are attended by consciousness, yet actions which have become very familiar to us through frequent repetition, though they

demand consciousness at first, can after a time be carried on without it. In striking out fresh paths in the brain or those which are seldom used nervous impulses experience greater resistance, meet with more friction; and it seems to be this resistance which is especially attended with consciousness. On the other hand, in passing along well-worn paths impulses meet with little resistance, and may at last take place without or with a very limited measure of consciousness. Thus, on this supposition the more complex automatic or reflex activities are carried out by the higher (cortical) centres. Now, in sound sleep the activity of all these centres is in abeyance. In dreaming the higher cerebral centres are only in action; though sensations of vision, of pain, occur in dreams, the lower sensory centres may not be aroused, but the images of memory of former sights, pains, smells, &c., deposited in the cells of the highest centres are called up. In somnambulism both the lower and the highest sensory and motor centres are called into activity, but only in a limited way, with strict reference to the illusion which is being acted upon. The rest of the brain lies dormant. Similarly, in induced somnambulism (hypnotism) the operator can put into action certain centres exclusive of all others by means of a potent suggestion. These centres enter into new and as a rule unaccustomed association with each other, and are also isolated in their action from all other centres to an extent that never takes place in normal life, and their excessive activity inhibits the action of other parts of the brain. In both cases the normal processes of association of the ordinary life being for the duration of the somnambulistic state set aside, there is nothing to call up the memory of what has passed until the subject again falls or is thrown into the same condition, when the processes of association for the special events of the somnambulistic or hypnotic state evoke a partial or complete memory of the previous or of all former somnambulisms.

The phenomena of secondary consciousness can be explained in a similar way, the secondary states being prolonged conditions of somnambulism which arise spontaneously in the waking state, and the events of which are associated together in the brain, but dissociated from all other cerebral processes.

ADHERENT PERICARDIUM IN CHILDREN.

BY

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I WISH to bring forward a few facts in connection with adherent pericardium in children, the two most important of which are—(1) that adherent pericardium is the most common cause of enlarged heart in children, and (2) that this sequence of pericarditis is much more serious in its nature than valvular disease, and that children in whom it is present will probably never reach adult life. These facts are not new; but although known to those who have had experience of children, they do not appear to have received general recognition. The two writers who most clearly give expression upon this point are Dr. Sansom and Dr. Sturges, both of whom are physicians to children's as well as to general hospitals.

Dr. Sansom, comparing the effect of pericarditis in children and in adults, makes the following statement: "Pericarditis in childhood may pass away leaving no trace, but more frequently it is accompanied by persisting endocardial changes, and is followed by adhesions between the visceral and parietal layers of the pericardium with much thickening—a condition which, however it may be in the adult, disposes the child to very considerable hypertrophy of the heart."[1] He also says: "In children adhesions of the pericardium constitute one of the most important conditions that militate against recovery. A valvular lesion may be perfectly compensated, but pericardial adhesions are adverse, and often lead to rapid death."[2] Here we have adherent pericardium referred to both as a cause of hypertrophy of the heart and of rapid death.

Dr. Sturges lays stress upon the same points. When speaking of hypertrophy of the heart, he says: "Of the origin

[1] *The Diagnosis of Diseases of the Heart and Thoracic Aorta*, 1892, p. 38.

[2] *Ibid*, p. 105.

of this change it does not become us to speak positively in the patient's lifetime. But we know for certain, and can show you in our Museum, that the common cause is adherent pericardium."[1] Dr. Sturges emphasises the importance of pericarditis as a complication of endocarditis. He mentions mitral stenosis as the most common valvular lesion, but says: "The well-being of a child having this defect depends largely on his immunity from subsequent rheumatic attacks, however slight; and what chiefly abridges the period of health he will enjoy is the occurrence of adherent pericardium either in the first or in some later attack."

During a recent visit to London, I examined the *post-mortem* reports of Guy's Hospital for the last seven years, in order to see what evidence they afforded on these points. The following table shows clearly the association of enlarged heart with general adhesion of the pericardium. It must be remembered that the normal weight of the heart at the age of four is about 2 oz., between four and seven years $2\frac{2}{3}$ oz., and between seven and fourteen years $4\frac{1}{3}$ oz.

Sex.	Age.	Weight of Heart.	Condition of Valves.
M.	$3\frac{1}{2}$	$7\frac{1}{2}$ oz. (with pericardium)	Normal.
M.	7	7 oz.	Small bead-like vegetations on mitral valves; valves otherwise normal.
M.	8	10 ,, ...	Small bead-like vegetations on mitral and aortic valves; valves otherwise normal.
M.	9	$7\frac{1}{2}$,, ...	Valves normal.
F.	9	12 ,, ...	Mitral valves thickened.
M.	13	15 ,, ...	Valves normal.
F.	11	17 ,, ...	Mitral valves thickened.
M.	12	13 ,, ...	Valves normal.
F.	12	$8\frac{1}{2}$,, ...	Valves normal.
F.	12	23 ,, ...	Mitral valves slightly thickened; small bead-like vegetations on aortic valves.
M.	13	22 ,, ...	Valves normal.
F.	15	$13\frac{1}{2}$,, ...	Small bead-like vegetations on aortic and mitral valves; valves otherwise normal.
F.	15	12 ,, ...	Mitral valves thickened and shrunken; aortic valves also thickened, but "not shrunk."

[1] *Lancet*, 1892, vol. i., p. 622.

In the above cases adherent pericardium may be said to have been the cause of death, and the associated valvular disease was a comparatively unimportant complication. In nine out of the thirteen cases the valves were distinctly stated not to have been thickened, and in the report of the remaining four it is stated only once that the valves were shrunken.

That adherent pericardium, apart from any valvular disease, may be a cause of great enlargement is seen from the case, in a boy aged 13, in which the heart weighed 22 oz., while the valves were quite normal. In one other case, in which the heart of a girl weighed 23 oz., it is distinctly stated in the report of the necropsy that although the valves were thickened, the condition of the orifice itself "would have caused no regurgitation." In three of the cases in which the valves were not thickened, small bead-like vegetations were present. These vegetations were, however, too small to have had an injurious effect upon the circulation through the heart, and cannot prevent us from considering the adhesion of the pericardium as the cause of the enlargement.

Not only is adherent pericardium a serious form of heart-disease in children, but it appears to be more common than ordinary valvular disease. In the records for the seven years from which the above cases were taken there were only four cases of death from valvular disease in children aged fifteen years and under, and one of those four gave evidence of previous pericarditis. In a fifth case, myocarditis was thought to have been the cause of death, and here also there was evidence of a former attack of pericarditis. Excluding this last case, we have four cases of death from valvular disease and thirteen of death from adherent pericardium. From so small a list it perhaps would hardly be safe to draw any sweeping conclusion, but the above ratio is to a great extent corroborated by Dr. Sansom,[1] who says that out of ninety-nine cases that showed clinical evidence of mitral regurgitation no less than three-fourths gave *post-mortem* evidence of pericarditis.

The other point to which I wish especially to refer is the

[1] *Cyclopædia of Diseases of Children*, Ed. by Keating, 1890, vol. ii., part ii., p. 821.

prognosis, which appears to be more serious in these cases than in valvular disease. A child with adherent pericardium will if it lives to puberty, probably not survive that period. The time from seven to fourteen years of age is one of the most active periods of the growth of the heart, and while the circulatory disturbance produced by valvular lesions may be efficiently combated by healthy hypertrophy, the presence of adherent pericardium will probably lead to a final breakdown. Between the ages of fifteen and twenty the Guy's Hospital *post-mortem* records for the same period of seven years give four cases only in which adherent pericardium was present, and in three of these there was also serious valve-disease. Above the age of twenty there was no instance in which adherent pericardium could have been said to have been the cause of death, since the associated valve-disease was well-marked. From the above facts we may infer that below the age of fifteen adherent pericardium is the most serious form of cardiac disease, between fifteen and twenty that it is less commonly fatal, and that above the age of twenty it very rarely causes death. To put this conclusion into other words, we may say that adherent pericardium is the form of chronic heart-disease most to be feared in children, while in adults valvular disease is undoubtedly of far greater consequence.

Adherent pericardium in children being of such serious nature, the importance of diagnosis is at once obvious. This is a somewhat difficult question. If aware of a previous attack of pericarditis in a child suffering from an enlarged heart, we should probably diagnose adherent pericardium on the grounds of probability, but in the absence of such a history we are driven to rely upon physical signs alone. Here a text-book list arises before us: retraction of the apex-beat, retraction of the lower end of the sternum, diastolic rebound, pulsation of the veins of the neck, the pulsus paradoxus, and so on. I may say, perhaps with little fear of contradiction, that all these are of little value. To take the first, the retraction of the apex-beat, for example; it is generally considered not to occur unless there are adhesions between the pericardium, the pleura, and the chest-wall as well as between the two surfaces of the pericardium. These adhesions

are, however, the exception rather than the rule;[1] so that, allowing the retraction to be present in every case in which they exist, the sign would in the majority of instances fail us. But when such adhesions are present the retraction may be absent. In a case that recently died under the care of Dr. Harrison in the Bristol General Hospital, I suspected adherent pericardium during life, and examined the cardiac impulse very carefully. At the *post-mortem* examination the pericardium was found to be universally and firmly adherent to the chest wall, yet clinically there had been nothing but the forcible slapping impulse of a dilated heart, which had something of that undulating character not uncommonly seen. Again, allowing retraction of the apex-beat to be present in some cases of adherent pericardium, it may also exist where there is no suspicion of cardiac disease; and thus its value is still further diminished. The clinical reports of the cases dying in Guy's Hospital are silent upon this point and upon retraction of the lower end of the sternum. This does not prove that the signs were in every case absent; but since the reports are written under careful supervision, it is obvious that if present they were not sufficiently well-marked to attract attention.[2] While retraction of the apex-beat and of the lower end of the sternum are not mentioned, "a curious recession" of the impulse was noticed during diastole in one case. Although this is the reverse of diastolic rebound, there must have been something abnormal occurring after the impulse. Signs such as pulsation of the veins in the neck and the pulsus paradoxus need not detain us; they are still less distinctive.

[1] Dr. Wordsworth Poole, who has recently examined the reports of cases of adherent pericardium at all ages dying in Guy's Hospital during ten years, kindly tells me that adhesions between the heart and the chest-wall occurred only 11 times in 196 cases.

[2] Since this paper was written I have examined the *post-mortem* records of cases of enlargement of the heart dying in Guy's Hospital during the space of twenty years, and cases of adherent pericardium in children during twenty-seven years. These reports were examined with the view of elucidating another question, and special attention was not given to the points referred to above. Three instances, were, however noted in which retraction of the apex-beat, or of the chest-wall in its immediate neighbourhood, had been present. The importance of adherent pericardium in children was well illustrated; but in one or two isolated instances it seemed to be the main cause of death in patients of nearly thirty years of age. These, however, were exceptions; between twenty and thirty, deaths from valvular disease, most commonly mitral stenosis, were greatly in the majority.

Reference may, however, be made to a physical sign upon which some writers lay considerable stress. That is, that the situation of the apex-beat does not alter with the position of the patient. The impulse of a healthy heart shifts ½ in. to ¾ in. or more when the patient turns from lying on the back to the left side; but when adherent pericardium is present, it is said to remain stationary. It is obvious, however, that adhesion must also be present between the pericardium and the chest-wall; and since these are generally absent, this sign can be of no great value. In two cases in which I have had good reason to suspect adherent pericardium, since a dilated heart has followed a history of pericarditis, I have found that the impulse altered its position as in the hearts of healthy children.

It is to an auscultatory sign that I wish particularly to refer. That sign is a sound heard during diastole which may constitute part of a typical *bruit de galop*, or be a rumbling sound that might easily be mistaken for a presystolic bruit. In cases of adherent pericardium with dilated heart, whether there is disease of the mitral valves or not, we shall almost certainly have a systolic apex bruit due to regurgitation of the heart. In addition to this systolic bruit, we shall also probably hear another abnormal sound interpolated between the first and second sounds. This may be merely like a soft first or second sound, or it may be of rumbling character, diastolic or presystolic in time, and thus be thought to indicate mitral stenosis. The two varieties were well illustrated in the case of adherent pericardium under Dr. Harrison already referred to. When first examined, a presystolic rumbling sound, followed by the first sound, and a systolic bruit were audible at the apex, but six days after the presystolic rumble had become diastolic and formed part of a *bruit de galop*. That the presystolic rumbling sound was not due to any mitral stenosis is shown by the fact that at the *post-mortem* examination the orifice admitted five fingers. As before mentioned, this bruit, audible in the dilated heart of a case of adherent pericardium, may be either diastolic or presystolic. The clinical reports of the thirteen cases that occurred in Guy's Hospital showed that a presystolic rumbling sound was noted twice and a diastolic bruit three times. The

distinction of these sounds from those due to mitral stenosis must sometimes be very difficult. The presytolic rumble of a dilated heart is, however, very low pitched, and the disastolic bruit will probably be heard not only just round the impulse, as is common in mitral stenosis, but also over the right ventricle in the third and fourth intercostal spaces.[1]

I must only briefly touch upon the pathology of the enlargement of the heart. That it is not due to mere adhesion of the pericardium is obvious, since the heart does not enlarge when the adhesion follows left-sided pleurisy, or occurs in patients dying of phthisis.[2]

The rheumatic pericarditis of children must have peculiarly virulent qualities not possessed by pericarditis due to local causes. That it commonly proves fatal in the acute stage shows that the heart may be profoundly affected at the onset. One naturally thinks of the heart-muscle, but microscopic examination does not always reveal any marked change; for example, I have sections of heart-muscle in my possession, from a case of pericarditis in a girl aged fourteen, that show little, if any, alteration in the muscle-fibres; in fact, nothing abnormal but a few leucocytes surrounding the blood-vessels close under the pericardium. Perhaps in these cases the nerve-supply to the heart suffers. But whatever the explanation may be of the serious results of pericarditis in children, the fact remains that those results are serious, and far more serious than has been generally recognised, since valvular disease still occupies the foremost place in works upon diseases of children, adherent pericardium being often disposed of in one or two sentences.

[1] The occurrence of a presystolic or diastolic apex murmur apart from stenosis of the mitral orifice and of disease of the aortic valves appears to have escaped notice until this year. Since this paper was written, Dr. Sturges has mentioned in the Lumleian Lectures five instances of a presystolic murmur without stenosis in children, and Dr. Graham Steell has reported in the *Practitioner* for April two cases in which a diastolic murmur occurred in the dilated hearts of patients with adherent pericardium. The ages of these patients were 19 and 23.

[2] Dr. Wordsworth Poole, who was examining the Guy's Hospital *post-mortem* reports of adherent pericardium at the same time as myself, tells me that during ten years there were eight cases of adherent pericardium associated with old left-sided pleurisy or with phthisis in children under the age of fifteen, and in only one was the heart enlarged.

A CASE OF SYRINGOMYELIA.[1]

BY

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THE patient whom I have shown to-night was admitted to the Royal Infirmary on February 20th, 1894, under my care, complaining of weakness and of inability of feeling objects with his hands. He is aged 57, never married, by occupation a messenger and potman. His father died at the age of 57 of gout; his mother, aged 37, of an unknown cause. He has four sisters living and healthy; there are no brothers living, two died (one in infancy) of unknown causes.

His physical history is as follows: When aged 7 years he received an injury to the right hand, deforming the thumb; in later childhood a lateral curvature of the spine slowly appeared. When aged 27 he had typhoid fever (under Dr. Beddoe, at the Royal Infirmary). In 1881 he was admitted to the Royal Infirmary, under the care of Dr. Shaw. The notes then taken of his condition are valuable, as they show that some of the symptoms which he now presents existed then, and that others have developed since that time. I need then make no apology for quoting them nearly in full: "Eight days before admission the patient found, somewhat suddenly, that he could not raise his arms above the shoulders; there was no fit, or loss of consciousness, or pain in the arms at the time of onset. The arms got worse up to the time of admission. There was no history of syphilis or lead-poisoning. On examination it was found that the temperature was normal, heart and lungs healthy. Marked lateral curvature of spine. No bladder or rectal trouble. Cannot put arms above head; movements of elbows and shoulders easily restrained, wrist movements slow and feeble, hardly any grasp in either hand. Leg movements good; both

[1] A Paper read at a meeting of the Bristol Medico-Chirurgical Society, March, 1894.

plantar reflexes present. Knee-jerks present, no rectus or ankle clonus. Cremasteric, abdominal, and epigastric reflexes present. No wasting of legs or arms. Neither deltoid reacts well to faradic current, all other muscles easily. Sensation rather dulled over both arms and over trunk from trunk to groin. Eyes normal." The patient after a time went out, neither better nor worse than when he entered the Infirmary. He now says that a fortnight before admission, on February 20th last, he found he could not feel objects with his hands, and that this loss of sensibility came on rather suddenly.

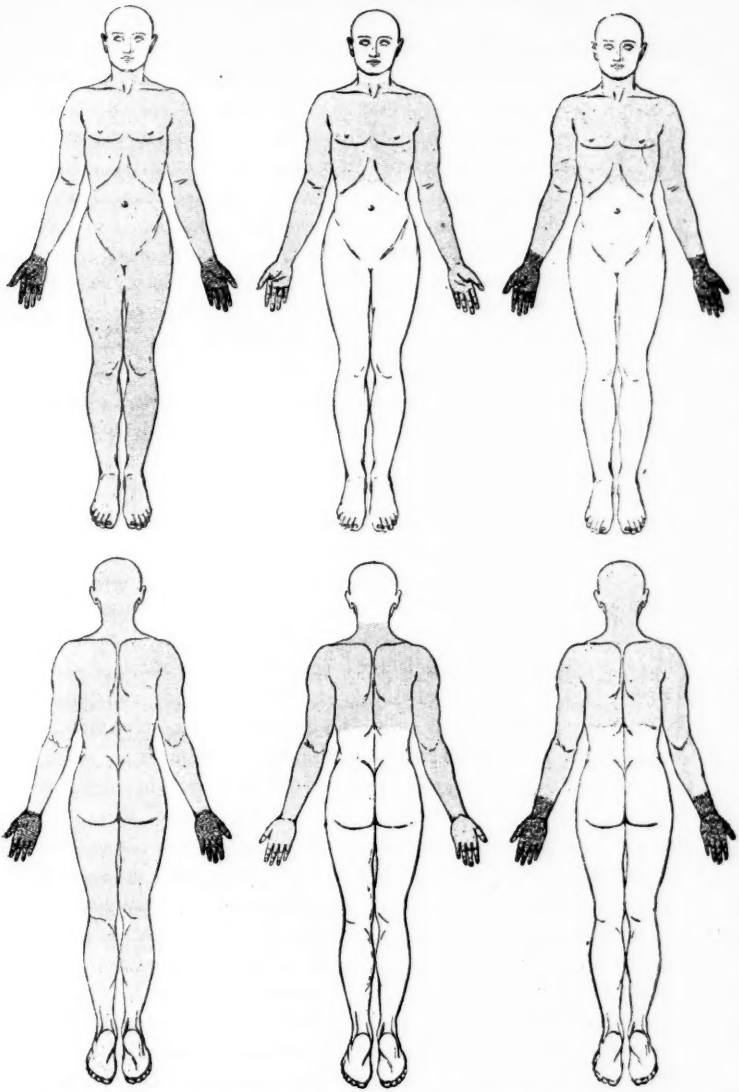
On examination, it is found that the patient is a little man, looking older than his years, with arcus senilis. The heart, lungs, abdomen, urine, are normal; appetite good, bowels open every other day, sleeps well. There is a marked lateral curvature of the spine to the right, involving the whole dorsal region, with slight compensatory curves above and below.

Muscles.—The pupils are equal in size, of medium diameter, contract well to light and accommodation, but do not dilate on irritation of the skin. The movements of the external ocular muscles are normal. The facial, glossal, palatal, pharyngeal and laryngeal muscles are normal. The head can be rotated well, but the lateral movements are feeble and slow. In the right arm the terminal phalanx of the thumb is anchylosed to the proximal one. All the fingers, in an increasing degree towards the ulnar side, are moderately flexed at all joints: this flexion can be voluntarily increased at all joints so as to form a fist, but the fingers cannot be extended either voluntarily or by a bystander, probably due to shortening of the long flexor tendons. The grasp of the hand is exceedingly weak. There is wasting of the interossei muscles and of the thenar and hypothenar eminences. The fingers cannot be abducted or adducted; but the thumb movements are executed, though feebly. In the left arm there is slight ulnar deflection of the little finger, probably due to rheumatoid arthritis. Abduction and adduction of the fingers are possible. The thenar and hypothenar eminences are flat, but all movements of the thumb are performed. All movements of fingers, hand, wrist, forearm and arm are executed with exception of that of abduction at the shoulder-joint, which cannot be com-

pletely performed. There is no obvious wasting of the muscles of the left forearm and arm, but all the movements described above are very feebly performed. In the legs the patient says his power is feeble, and that his knees feel weak, especially on going up stairs. On asking the patient to walk he presents an obviously spastic gait. The muscles are moderately developed: there is no wasting, and all movements are performed on request, though feebly. There is slight tonic contracture in the adductor and hamstring muscles of the thigh and calf muscles in both legs. The trunk movements are all possible, but are feebly performed. On electrical examination, it is found that there is no reaction of degeneration, but that there is a marked diminution in response to both constant and interrupted currents in the thenar and hypothenar muscles of both hands and in the interossei of the left hand, whilst there is no contraction of the interossei muscles of the right hand on the application of either current. There is also slight diminution to both currents in all the muscles of both arms.

Reflexes.—The scapular, gluteal, epigastric, abdominal and cremasteric reflexes are absent; the plantar reflexes are both present and somewhat active. Both knee-jerks are exaggerated, but neither rectus nor ankle clonus can be elicited on either side. The triceps and biceps jerk are absent in both arms.

Sensation.—The loss of tactile sensation is as represented in the diagram. Sensibility to heat, cold, and painful impressions is lost in the area indicated in the diagram: it is somewhat noteworthy that the area is almost identically the same for these three forms of sensibility. In testing the sensibility to heat, it is noticeable that in the skin-area of loss, the hot object (a test-tube filled with hot water), though it is not felt, produces a decided flush on the part to which it is applied, probably due to a local action on the skin capillaries. The muscular sense is everywhere normal, as is also the common sensibility of the muscles—*e.g.* in the lower part of the forearms, where there is absolute cutaneous anæsthesia; if a pin be thrust through the skin, a painful sensation is felt directly the point touches the muscles or tendons.



Light shading is area of partial anæsthesia to touch. Darker shading is area of total anæsthesia to touch.

Area in which there is total analgesia to the prick of a pin.

Light shading is area of partial anæsthesia for heat, and of total anæsthesia for cold. Darker shading is area of total anæsthesia for heat and cold.

Special Senses.—The fields of vision are normal: with + 1 he reads $\frac{5}{6}$, and with + 2 he reads J1. Taste and smell are good. He is a little deaf. There is no evidence of any defect of motion or sensation of the viscera, and the vesical and rectal reflexes are normal. There are no trophic changes either of the skin or underlying tissues, and no vaso-motor defects. Owing to the cutaneous anæsthesia of the hands, the patient is rather apt to burn himself, but the lesions so caused readily heal.

The foregoing is a short record of the clinical history, as far as can be ascertained, and of the present state of the patient.

It is obvious that he presents—(1) a condition allied to progressive muscular atrophy in the upper part of the body, as shown by the weakness in the neck and arm muscles, and by the wasting of the intrinsic muscles of the hands. (2) Spastic paraplegia of the legs, evidenced by diminution of voluntary power, tonic contracture and exaggerated knee-jerks. (3) Diminution of tactile sensibility in all parts innervated by the spinal nerves—total loss in the hands and wrists, partial elsewhere. (4) A loss of thermic and algesic sensibility in extent and degree indicated in the diagrams. (5) Preservation of the muscular sense and of the common sensibility of the muscles and tendons. (6) No evidence of any defect of sensation or motion of the viscera. (7) No lesion of the cranial nerves. (8) No pain. Further, the progress of the disease, as shown by a comparison of the patient's condition in 1881 with that now present, appears to have been: (α) A lateral curvature of the spine, dating from early life. (β) A partial anæsthesia of the skin, of slow and unnoticed onset, which since 1880 has become absolute in the distal parts of the upper extremities. (γ) A condition analogous to progressive muscular atrophy—*i.e.* weakness and wasting in the arms — slightly marked in 1881, has developed slowly since then. (δ) A spastic paralysis of the legs which has developed since 1881. The time of onset of the loss of thermic and algesic sensibility appears doubtful: in 1881 this point was not investigated, and may possibly have been present then in slight degree. It appears possible that there may have been two periods in which the affection, at other times very slowly progressing, took a subacute course—*i.e.* in 1881 more particu-

larly in respect to the loss of power in the arms, and in 1894 as regards the loss of tactile sensibility in the arms.

The diagnosis arrived at from a consideration of the above points is that of syringomyelia. It is obvious that hysteria, myelitis, cervical pachymeningitis, spinal tumour and peripheral neuritis (which are the affections most liable to be confused with the above) can be excluded. The typical symptoms of this condition are—(1) Progressive muscular atrophy in the arms, (2) spastic paraplegia of the legs; (3) loss of skin sensibility of wider extent and earlier onset than the muscular wasting, generally affecting only thermic and algesic sensibility.

This case, then, is atypical, in that there is a loss of tactile sensibility, of distribution and degree described above. With reference to this point, it is to be remarked that this symptom has been marked in cases in which the diagnosis of syringomyelia has been verified. Hence, it does not invalidate the diagnosis.

Again, there are no trophic lesions—the case is one of simple syringomyelia, and not one of Morvan's disease, which is apparently syringomyelia *plus* peripheral neuritis, and which is characterised clinically by the addition of tactile anæsthesia and trophic lesions (the most typical of the latter being painless indolent whitlows of the fingers) to those of syringomyelia.

As the disease is somewhat rare (less than a hundred cases having been recorded), and as this is the first instance shown at this Society, I may perhaps add a short account of the pathology as far as it is known, to make the connotation of the term clearer. To do so, we must begin at the beginning. The spinal cord (and brain) is formed by the invagination of a median longitudinal strip of dorsal ectoderm, which separates off and then consists of an oval tube with cellular walls. The white matter—*i.e.* nerve-fibres—is formed on the exterior of this tube by outgrowths of cell processes; and the anterior fissure is due to lateral downgrowths of the grey matter, covered by the white, on either side of the median ventral line. The posterior fissure is formed in a different way: the central canal is obliterated from above downwards (*i.e.* back to front, if the

embryo be placed upright) by a collapse of its walls, so that only the ventral portion persists as the small central canal of the cord, and the posterior fissure is due to absorption of the dorsal wall so formed from above downwards.[1] Now, syringomyelia is due primarily to a persistence of this long oval embryonic central canal, having walls composed of embryonic neuroglia tissue. This condition, sometimes called hydromyelia, causes no symptoms, and is found accidentally at autopsies.

The symptoms of syringomyelia are due to secondary processes, either to distension of the persistent embryonic canal or to overgrowth, with occasionally secondary breaking down of the neuroglia wall. The distension is usually most marked in the cervical and upper dorsal region, and correspondingly the symptoms as a rule begin and are most marked in this region. The distension, if extreme, will affect the anterior cornua causing atrophy of the corresponding muscles, and the pyramidal tracts causing spastic paraplegia of the legs; but these motor affections are always slighter in degree than, and secondary in time to, the sensory symptoms which are due to involvement of the posterior cornua and sensory tracts. The typical impairment is that of thermic and algesic sensibility. Why this should be is not known, nor is it known why tactile sensibility usually, and muscular and visceral sensibility always, are normal.

The main sensory tracts in the cord are generally held to be the posterior white columns, together with the dorsal and ventral cerebellar tracts of the antero-lateral white columns. Of these only the fibres of the posterior-median columns are directly continuous with those of the posterior roots; the grey matter of the cord intervenes between the fibres of the other tracts and the posterior roots. As regards function, there is a good deal of evidence that muscular sense-impulses pass up the posterior-median columns on the same side as they enter; whilst the evidence is conflicting for other kinds of sensory impulses. Clinical and pathological facts have generally been held to show that cutaneous (of heat, cold, pain and touch) impulses cross the

[1] Some authorities hold that the posterior median fissure is formed not merely at the expense of, but partially from, the dorsal part of the large embryonic central canal.

cord soon after entry and run up on the other side, whilst recent experimental research points to the view that sensory impulses mainly pass up on the side of entry.

The evidence deduced from cases of syringomyelia does not shed any light on the problem of decussation in the cord; but it perhaps indicates that the grey matter, and hence those kinds of impulses which pass through it, is more affected by the enlarging central canal than are the posterior white columns.

PIGMENTATION IN AMENORRHŒA.

BY

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Pigmentation occurs as a rule in the physiological amenorrhœa of pregancy; but it is not generally known that it often occurs in ordinary amenorrhœa, and in some cases to such an extent as to lead to the error of diagnosing the condition as Addison's disease. The case of Miss X. is one in point. She was pronounced to have this disease by two leading doctors in London; she had all the marked features of the disease, yet she has perfectly recovered, and I do not think she ever had it.

Her history briefly is: At the age of 18, after menstruating two years, she ceased to menstruate—this was in July, 1888. Discolouration of skin began in 1889, and was as well marked as a typical Addison's disease in 1890. The discolouration increased till January, 1893; then improved health was noticed, and in June, 1893, catamenia became once more established. During her ill-health she was very desponding and weak. The treatment was vinum ferri ʒj. and liquor arsenicalis ♏v. three times a day, burgundy, plenty of milk, and fresh air. She is now perfectly well and free from any discolouration.

The subject of pigmentation in connection with amenorrhœa is one of great interest, and I think that in pregnancy the absence of the catamenia has more to do with pigmentation than the presence of pregnancy; in other words, I believe the deposition of colouring matter is most likely due to the non-elimination of something that ought to be got rid of at a menstrual period, and not so much due to the altered state of the blood in pregnancy.

The whole subject of pigmentation is far too large for the present occasion, and in this note I simply wish to draw attention to its occurrence in amenorrhœa of non-pregnant women. I have noticed it in several cases, and it is important not only to enable us to avoid attributing it to a serious illness, such as Addison's disease, but also when the pigmentation is mammary to guard us from believing it to be due to pregnancy. As a rule, the pigmentation in non-pregnant amenorrhœa occurs about the face, neck, or hands; but it also does affect scars, just like one sees in pregnancy.

Progress of the Medical Sciences.

MEDICINE.

Much progress has been made since the proofs of the existence of a phthisical contagion were reviewed in these pages in the year 1883, soon after the discovery by Koch of the bacillus which is especially associated with his name. My own summary of the experimental evidence on which the inseparable connection between the bacillus and tubercle was founded, and the clinical evidence which then existed, was followed by a powerful accumulation of clinical evidence collected by Dr. Markham Skerritt, who urged that every consideration should be given to the weighty evidence in opposition to the theory of contagion.[1] It is no longer necessary to give proofs of the existence of the contagion itself, or of the need for antiseptics in the treatment of the disease. The evidence on which Dr. William Budd[2] announced his belief that phthisis would be found to be contagious, and which led him to the conviction that the deposits of tuberculous matter are of the nature of an eruption, and

[1] *Bristol M.-Chir. J.*, vol. i., 1883, pp. 1—70. [2] *Lancet*, 1867, vol. ii., p. 451.

bear the same relation to the disease as the yellow matter of typhoid fever bears to the fever itself, led him also to the logical conclusion that "by the destruction of tubercular matter in its issue from the body, by means of proper chemicals and otherwise, succeeded by good sanitary conditions, there is reason to hope that we may eventually, and possibly at no very distant date, rid ourselves entirely of this fatal scourge." We are even yet far off from this long-looked-for consummation, and, in spite of constantly repeated experimental demonstrations, and of an overwhelming mass of accumulated clinical evidence in animals and man, the profession as a whole has not yet adopted the logical methods of treatment which necessarily follow from an ungrudging and hearty acceptance of the truths which have been so amply proved.

The reason for this slowness in the acceptance of verified facts arises mainly from the limitations in the action of the specific virus. It has been emphasised by Daremberg[1] that few of those who may be exposed to it are found to be favourable soil; if it were otherwise, "if the contagion of phthisis was necessarily fatal, if no organism could escape it, then humanity itself would have been long since destroyed."

And yet the tubercle bacillus has become the one fixed fact in the pathology of phthisis, the acknowledged centre about which all the phenomena revolve; the study of the etiology of tuberculosis has become that of the life history of the bacillus, the symptomatology becomes the effects of the bacillus in the body, the definite diagnosis becomes the recognition of the bacillus in the discharges or the tissues, and the therapeusis becomes resolved into the use of agents which destroy or prevent its growth.[2]

A paper by Dr. T. Mitchell Prudden, on the element of contagion in tuberculosis,[3] points out that the modern view of an infectious disease is one which is caused by the invasion and reproduction within the body of pathogenic micro-organisms, and that "*infection* is the condition produced by the entrance and multiplication of pathogenic micro-organisms within the body. . . . The *contagium* in any infectious disease is . . . the particular pathogenic micro-organism itself . . . An infectious disease is contagious when its contagium . . . under the ordinary conditions of life, can be freed from the body of a diseased person, and, by whatever means, conveyed to the body of another in a condition capable of lighting up the disease anew. The old indefinite distinction between infection and contagion, by which one strove to express, among other things, a fundamental difference between the conveyance of disease by personal contact and by aërial transmission, has become impracticable and valueless now, because we know to-day that

[1] *Traitement de la Phtisie pulmonaire*, vol. i., 1892, p. 54.
[2] Overholser, *Med. Rec.*, vol. xliv., 1893, p. 291.
[3] *Tr. N. York Acad. M.*, vol. ix., 1893, p. 19.

the differences in the mode of communicability of infectious disease are largely dependent upon the physical qualitie of the contagia, upon the places and ways in which these are freed from the body, and upon the places and ways in which they enter the bodies of new victims."

Dr. E. G. Janeway,[1] in a paper on "The Necessity and Feasibility of Efforts to Prevent the Spread of Pulmonary Tuberculosis," further defines our position on this question in the following paragraph: "We cannot believe that the bacillus of tubercle will cause the development of tuberculosis in the human body, without becoming converted to the doctrine of contagion, at least in the sense that such bacilli eliminated from one person are liable to be received by another and, meeting with favourable conditions, establish the disease in the recipient. This granted, all is granted: for it practically admits contagion."

Dr. John S. Billings [2] points out that of the various infected localities "a specially infected and dangerous locality is a criminal court-room. Into this are brought every day persons affected with this disease, and depositing infectious sputa on the floors, where they soon dry and are ground into dust which pervades the air. These places, being never effectually cleaned from the bacteriological point of view, become centres of infection, causing disease not only in prisoners, but in spectators and lawyers."

A further paper by Dr. J. West Roosevelt, on "Practicable and Impracticable Plans for Diminishing the Spread of Phthisis Pulmonalis," [3] sums up the two questions: "What ought to be done?" and the more practical one, "What can be done?" He points out the folly of advocating "measures which are so radical, or expensive, or complicated and troublesome that the majority of people will never attempt to carry them out," and the futility of attempting to destroy every bacillus in the world. Hence the necessity for full consideration of all the questions relating to susceptibility and the soil. "The least impartial must confess that tuberculosis is certainly not contagious for all men alike, but broadly speaking only to those who, as we express it, have a predisposition towards the disease."[4] "We cannot hope to destroy the ectanthropic sources of infection since they are too widely distributed, nor can we destroy the affected individuals, since such destruction must always be incomplete, unavailing, even if free from other objections. . . . We must rely chiefly on the removal of the special predisposition, counteract the causes responsible for such predisposition, and, at the same time, destroy as far as possible all ectanthropic sources of infection."[5]

Dr. Chaplin [6] has formulated the conclusion that the "prevention of phthisis can only be effected by the strictest

[1] *Tr. N. York Acad. M.*, vol. ix, 1893, p. 26. [2] *Ibid*, p. 36. [3] *Ibid*, p. 47.
[4] Kanthack, *Med. Mag.*, Oct., 1893. [5] *Ibid.* [6] *Med. Mag.*, May, 1893.

measures, such as notification, segregation, and interdiction of marriage;" whilst, on the other hand, Dr. Goodhart[1] comes to an entirely different conclusion, and negatives these more rigorous measures.

Dr. Mitchell Prudden[2] does not see why the spread of tuberculosis should not continue if the present insanitary habits continue. "If the vile and increasing practice of well-nigh indiscriminate spitting goes on unchecked in nearly all assembling places and public conveyances; if the misguided women who trail their skirts through the unspeakable and infectious filth of the streets are to be admitted uncleansed into houses and churches and theatres; if theatres and court rooms and school houses and cars are to remain the filthy lurking places of contagia which their ill ventilation and their mostly ignorant and careless so-called cleaning necessarily entail; if in sleeping cars and hotel bedrooms the well are to follow consumptives in their occupancy without warning or even the poor show of official disinfection; if in ill-ventilated and ill-cared-for dwellings the well must breathe again and again the dust-borne seeds of tuberculosis; if no persistent warning is to be given to the ignorant of the dangers which lurk in uncleanliness—then our task will be most complex as well as difficult in limiting the contagiousness of tuberculosis." He concludes his paper as follows: "To make our way between the rigors of necessary legislation on the one hand and the demands of the humanities on the other is a task requiring tact as well as wisdom, and large knowledge withal of the daily ways of the world as it goes on outside of laboratories. But, wisely choosing thus the way with caution, let us not forget that death meanwhile holds carnival."

I have elsewhere[3] summed up the methods of dealing with tubercular phthisis from the point of view of antiseptics and contagion. We must urge "a consistent and methodical warfare against infectious dust."[4]

Dr. C. G. Currier[5] formulates the knowledge of to-day in this regard as follows:—

Keep clean. Avoid unclean places and unclean and diseased people.

Do not spit on the floor or on the ground, and do not allow others to do so.

Expectorated matter loses its harmfulness when burned.

Clothing and other articles used by "consumptives" can be sterilized by exposure to the heat of boiling water for at least fifteen minutes.

It is safest to use milk, water, and other foods, only after they have been well cooked.

Abundant fresh air is a valuable purifier.

[1] *Med. Mag.*, June, 1893. [2] *Loc. cit.* [3] *Med. Ann.*, 1894 p. 462—73
[4] *Brit. M. J.*, 1893, vol. ii., p. 633.
[5] *Tr. N. York Acad. M.*, vol. ix., 1893, p. 44.

The following code of precautions against consumption is now in use at the Bristol General Hospital:—

When the matter which is coughed up in some kinds of chest complaints dries on the ground, the dust carries back the infection to the patient himself and to other people, although the breath of consumptive persons is not directly infectious.

Therefore—

(1) Patients must use spitting cups, in which liquid disinfectants should be kept. The contents should be emptied on the fire and the cups scalded daily in boiling water.

(2) They must never spit on the ground or out of doors. In place of handkerchiefs they should use pieces of rag which can be burnt or thoroughly boiled.

(3) No linen or handkerchief on which anything from the patient has fallen should be allowed to dry, but should be placed in carbolic lotion and thoroughly boiled.

(4) The phlegm must not be swallowed. The contents of a bed-pan should have a disinfectant poured on them at once. The cup, spoon and fork of a patient should be used by him alone, and be put into boiling water after each meal.

(5) Cows' milk should always be boiled before it is used by anyone. Consumptive mothers should not suckle their children.

(6) The bedroom of a consumptive patient must have plenty of fresh air day and night, and the chimney must be kept unstopped. The walls and boards of his room must be often wiped with a damp cloth to avoid raising any dust.

(7) Great cleanliness and plenty of sunlight and fresh air in the rooms are most important.

* * * *

So much is the diagnosis of the early stages of enteric fever beset with fallacies that any trustworthy aid will be gladly welcomed, and hence the "diazo reaction" as a urinary test has received much attention. Ehrlich has ascribed to it a distinct diagnostic value; but on the other hand many observers believe that little reliance can be placed upon it. The latest addition to the extensive literature of the subject is from Dr. John Hewetson,[1] who, from an analysis of the results given in 196 cases, concludes that as a diagnostic aid "it fails us when most needed, and although its absence during the entire disease would seem, according to most observers, to be of very rare occurrence, it must not be forgotten that the substances in the urine which give rise to it may have been present and have disappeared before the patient has come under observation."

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[1] *Johns Hopkins Hosp. Rep.*, vol. iv., 1894, p. 113.

"Cardiac Asthenia, or Heart-exhaustion," is the title of a paper by Dr. J. M. Da Costa.[1] He differentiates between the weak heart, as it is commonly known, which comes from organic causes, and with which everyone is familiar, and a condition in which for a long period there is habitual feeble action of the heart as the essential and only appreciable disorder. The distinction between these two conditions must be far from easy, but the author states that the diagnosis is not, as a rule, difficult. "The evident nature of the causes that have given rise to the heart-wreck, its generally sudden onset, the unembarrassed breathing, the feebleness of the pulse and of the cardiac impulse, are full of significance. The physical signs as well as the state of the respiration and the clinical history separate the weak asthenic heart from the weak heart of organic type, such as the typical ones of this group — fatty degeneration and cardiac dilatation."

* * * *

Dr. A. B. Macallum has given us a lengthy research on the absorption of iron in the animal body,[2] and his results give substantial evidences in favour of the view that *inorganic* iron is the specific for chlorotic anæmia.[3] Clinical evidence has long favoured this view, and now we have the experimental evidence, showing that in guinea pigs there is absorption in the intestinal mucosa, which, after treatment with alcohol and when tested with ammonium sulphide, acquires a more or less dark colour, due to the formation of sulphide of iron, which, under the microscope, is seen to be limited to the sub-epithelial portions of the tips of the villi; on closer examination the iron is found to be deposited in leucocytes which, in their disposition, form together a cap as it were for the extreme end of the lacteal vessel. When the dose is small, absorption occurs only in that part of the intestine adjacent to the pylorus and measuring only a few inches in length; yet when the quantity given at one time is large, the absorptive area may embrace the whole of the small intestine. Here we have a clear explanation of the greater utility of the large doses.

* * * *

The comparatively rare disease, known as desquamative enteritis or mucous colitis, has been described anew by Dr. E. M. Light,[4] who is not able to throw any fresh light on the cause of the affection, which, he says, is unknown. The results of treatment appear to have been satisfactory, as he states that "most cases can be cured by careful treatment." This is not my experience. In a period of twenty-five years I remember only four or five cases, and in these the results have been almost entirely unsatisfactory, inasmuch as no kind of treat-

[1] *Am. J. M. Sc.*, vol. cvii., 1894, p. 361. [2] *J. Physiol.*, vol. xvi, 1894, p. 268.
[3] See *Bristol M.-Chir. J.*, vol. xi., 1893, p. 104.
[4] *Practitioner*, 1893, vol. l., p. 173.

ment has had the least effect in controlling the malady. Further investigations, possibly from the bacteriological point of view, are much needed, and may afford us a more useful kind of treatment than as yet exists: I have on one case exhausted the whole list of intestinal antiseptics, but the disease continues its course uninfluenced by any of them.

R. Shingleton Smith.

SURGERY.

There is, perhaps, no disease in which it is more important to make an early diagnosis with a view to surgical treatment than in tumours of the bladder. Diagnose an innocent papilloma early, before cystitis has set in, and remove it at once, and there is probably no more satisfactory proceeding in our surgical art. Fail to recognise it until cystitis has come on, or allow the patient to drift on month after month with cystitis, every day increasing the chances of secondary disease in the kidneys, and then when operation is undertaken it will be too late, as the disease of the kidneys will only be kindled to greater activity, and life soon ended. Hence the great importance of a recent communication by Mr. Hurry Fenwick on the diagnosis and treatment of vesical tumours,[1] the result of his observation on 100 cases. The fact that these cases were diagnosed by means of the cystoscope shows the value of this method of investigation. Mr. Fenwick says "that out of some hundreds of cases of obscure urinary disease, it has enabled me to select at least fifty cases of vesical growth, the existence of which I should have been unable to pronounce with certainty without digital exploration." But to use the cystoscope with advantage requires some practice, which few surgeons have an opportunity for, and therefore Mr. Fenwick's remarks on diagnosis by other means are of much value. It has long been well recognised that the great symptom of villous growth in the bladder was hæmaturia, and that of a special kind. The patient feels perfectly well, but he comes to us one day bringing with him a specimen of bright-red urine, about which he is very alarmed. This bleeding recurs again and again, and yet he feels perfectly well and has no pain with micturition, and no growth can be felt in the renal region. Now, if we question the patient as to how the blood comes, we shall probably find that as he begins to micturate the urine is clear, but towards the end it is mixed with blood. This is most significant of vesical growth. Only towards the end of the act, when the bladder is getting empty, does the growth get interfered with by the contraction of the bladder-wall. Gilbert Barling, in a recent paper,[2] shows how frequently hæmaturia is the first symptom in papilloma of the bladder. Out of 76 cases, the records of which he has collected, it was present in 73, and

[1] *Brit. M. J.*, 1893, vol. i., p. 1209.
[2] *Birmingh. M. Rev.*, vol. xxxii., 1892, p. 205.

was the first symptom in 62. It has generally been considered that hæmaturia without pain or increased frequency of micturition indicates an innocent papilloma. Sir Henry Thompson considers that in malignant tumours the bleeding was almost invariably preceded by pain or "irritation of the bladder." Barling however shows that out of 86 cases of malignant growth, hemorrhage was the first symptom mentioned in 58;[1] and Fenwick believes that the softer forms of villous epithelioma may cause hæmaturia as the only symptom for months, and that often of a very profuse character.[2] Mr. Reginald Harrison[3] also states that papilloma in the bladder as elsewhere is liable to become cancerous and invade the bladder-wall, and he refers to a case of Mr. Paul's, in which a papilloma was removed several times in ten years and then caused death, when it was found infiltrating the bladder-wall.

Fenwick[4] calls attention to the fact that fragments of villous processes discovered in the urine (which he considers can be done in 19 per cent.) do not by any means indicate the innocent nature of the growth, for "41 per cent. of vesical carcinoma have a surface covering of villous processes." He considers that attempts should not be made to extract such fragments by sounding or scraping for diagnostic purposes, as hemorrhage is liable to result, which may be very troublesome, or cystitis may be set up. Even the plan recommended by Sir H. Thompson of using the evacuating litholapaxy syringe and catheter to withdraw fragments may cause considerable hemorrhage. Mr. David Wallace points out[5] that in these cases hæmaturia is sometimes due to detachment of a villous process, and hence such a procedure would be likely to start very considerable bleeding. In one of Mr. Wallace's cases the detachment and passage of a portion of the growth was always accompanied by severe hemorrhage.

Fenwick considers the welfare of the patient largely depends on the careful prevention of the onset of cystitis. Once let cystitis start and our chances of successful removal by operation are materially lessened. If the bladder has to be washed out for hemorrhage or retention from the presence of clot, the utmost care should be taken to have the instrument aseptic and the fluid sterile.

There is one condition which is generally considered a contra-indication to any attempt at removal of a vesical growth, and that is infiltration of the wall of the bladder as discovered by examination from the rectum or vagina, which indicates its malignant nature. But at the meeting of the Clinical Society on March 30th of this year,[6] a case was reported in which a malignant growth, which had recurred twice, was removed by

[1] *Loc. cit.* [2] *Loc. cit.*
[3] *Lectures on Surgical Diseases of the Urinary Organs*, 1893, p. 501.
[4] *Loc. cit.* [5] *Edinb. M. J.*, vol. xxxviii., part ii., 1893, p. 731.
[6] *Brit. M. J.*, 1894, vol. i., p. 752.

the suprapubic method, together with the portion of the bladder-wall from which it grew. Mr. Fenwick did not advise the operation in cases in which the peritoneum would have to be opened. Although tumours of the bladder are very often situated at the base, and therefore are uncovered by peritoneum, yet unfortunately they are often placed close to the orifice of a ureter, and this could hardly be removed. There have been a few cases recorded within the last few years of removal of a portion of the fundus of the bladder for malignant growth. Some of these are reported by continental surgeons, and one by Bruce Clarke in this country. In one case the peritoneum was peeled off the growth; in another it was removed with it; and even more extensive operations, such as altering the course of the ureters and then freely resecting the bladder, have been proposed by some London surgeons. An account of resection of the bladder-wall for carcinoma will be found in a paper by Gilbert Barling in the *Birmingham Medical Review* for March, 1890.

I operated last summer on a case of innocent villous tumour of the bladder, which well illustrates the need for early diagnosis of such cases with a view to treatment. There was a history of eight years' hæmaturia and occasional attacks of pain with micturition. On closely questioning the patient she told us that at times, not always, the blood had only come at the end of micturition. She was in great misery with the frequency and pain of micturition, and at night, even after a hypodermic injection of morphine, could get no rest. Having examined the urethra, and satisfied myself there was no urethral growth, under ether, I digitally explored the bladder. At first I felt nothing, and then I just touched what felt like blood-clot, so soft was it, floating against my finger. A minute portion was removed with forceps and spread out in water, and its papillomatous nature was at once apparent. The next day I removed a very large papilloma growing from the base of the bladder by the supra-pubic method; but it was too late, the urine was already ammoniacal and full of muco-pus, and she died in three days, with constant vomiting, probably from surgical kidneys. She had been seen by several medical men during the eight years, and had been sounded, but no digital exploration of the bladder had been made.

I have already referred to the use of the cystoscope in the diagnosis of vesical growths. Mr. Wallace,[1] whilst recognising the difficulty of the proceeding in certain cases considers that just as it is the rule to find the stone by sounding before operation, so it ought to be the custom to find the tumour with the cystoscope before attempting its removal. He admits that the appearance of the growth will not always determine its innocent or malignant nature, but that is so often with growths in other situations. Albarran says: "If the tumour be villous, with a thin pedicle, it is probably benign; while if the villi spring from

[1] *Loc. cit.*

a more solid surface—*i.e.*, seem to be implanted—the tumour is more probably malignant." Barling[1] also speaks well of the value of the cystoscope in the diagnosis of bladder tumours. He says "it leaves little to be desired, but in some cases the constant presence of blood in large quantities prevents a successful inspection with the instrument." The use of the cystoscope also might very readily induce the hæmaturia, when not already present. In writing about the differential diagnosis of cases of malignant disease of the kidney from bladder tumour, he says that in the former the use of the cystoscope will generally prove conclusively that the bleeding does not come from the bladder. But can we trust to negative evidence from cystoscopic examination? Our field of vision at one time is a very limited one, and in the frequent movement of the light from place to place we might easily miss a small growth.

How readily we may be misled by the use of the cystoscope (which requires practice just as the laryngoscope and ophthalmoscope do) is shown by reference to the beautiful atlas of cystoscopy just issued by Burckhardt and Fenwick. Folds of mucous membrane might easily be mistaken for a new growth, and distended glands in the mucous membrane of a healthy bladder might cause serious error in diagnosis. Villous growths happily seem unmistakable in the plates. Dr. Otis K. Newell, under the title of "A New and Positive Method of Bladder Examination,"[2] describes the aid to cystoscopic examination of bladder tumours derived from pushing up the base of the bladder with the finger in the rectum. The best account of cystoscopy is Hurry Fenwick's book on the subject[3] (not the atlas just referred to), in which he says that the old platinum loop cystoscope of 1879 has the same relation to that of 1887 as the "Puffing Billy" of Stephenson to later locomotives.

Watson[4] recognises the great difficulty there may be in getting a clear view of the bladder in cases of hæmaturia, but he says that "except when it is abundant and constant, a satisfactory view with the cystoscope can usually be obtained during a period of intermission of the bleedings, and if a moderate bleeding be excited by the introduction of the tube, it can usually be checked by prolonged irrigation with cold water, or, this failing, with very hot water."

In some cases a greatly enlarged prostate makes a cystoscopic examination in the ordinary way impossible. Hurry Fenwick in such cases proposes[5] to pass the instrument into the bladder through a cannula inserted above the pubes, so that the prostatic pouch could be thoroughly explored. If a growth were discovered the cannula opening could be enlarged and the growth removed. This proceeding, Mr. Fenwick points out, could replace supra-pubic exploratory cystotomy.

[1] *Loc. cit.* [2] *Med. Rec.*, vol. xliii., 1893, p. 261.
[3] *Electric Illumination of the Bladder and Urethra*, 1889.
[4] *Internat. Clin.*, vol. iii., 1892, p. 180.
[5] *Brit. M. J.*, 1894, vol. i., p. 860.

Nicoll[1] has lately pointed out some of the difficulties in the use of the cystoscope, but considers it an instrument of the greatest practical value in surgery.

Barling[2] describes a bimanual method of examination for vesical growths, which has only recently, he thinks, received the attention it deserves. We can understand its value in cases of carcinoma (and more especially in sarcoma, where usually the growth is larger), but we should hardly expect to determine the presence of an innocent growth composed entirely of delicate villous processes even if it had a fairly firm pedicle.

Formerly, if in some cases of intractable cystitis or recurrent hæmaturia, we were in doubt whether a tumour were not the cause, Sir Henry Thompson recommended a digital exploration through the perineum. Cystoscopy may now replace this operation in many cases: but there remain some in which either perineal or supra-pubic incision into the bladder is of great value not only for diagnosis but also for drainage. Reginald Harrison writes[3] with reference to such a proceeding in cases of chronic cystitis with offensive urine, in which there is no stone or vesical growth. He has thus operated in ten cases "with results which have proved uniformly successful and free from risk of any kind." In the case which Mr. Harrison relates in detail, he found the bladder much pouched in two places, and thinks the urine retained in these pouches near the rectum was the cause of the offensive urine and cystitis. The patient recovered after supra-pubic cystotomy and thorough flushing. I have lately had under my care a man 55 years of age (without prostatic enlargement), who came into the Bristol General Hospital, after months of painful micturition, with his urine almost solid with muco-pus. There was no history of hæmaturia at any time, and sounding detected no stone, nor did digital examination discover any infiltration at the base of the bladder. Washing out the bladder and leaving in iodoform emulsion greatly improved the condition of the urine. Had it not done so I intended at once to drain and explore the bladder by a supra pubic opening. He then got an attack of continuously high temperature, 102°–103° for a week, without fresh symptoms of any kind; but we detected distinct bilateral renal tenderness. After this he became more and more feeble, and died. There was found intense cystitis, with a pouch on the posterior aspect of the bladder, about the size of a walnut, with very thin walls. The bladder was contracted somewhat, but not greatly thickened or fasciculated. There was double pyelitis with suppurative nephritis, the onset of which had probably caused the high temperature. This we suspected to be the case during life, and, in addition to his extreme weakness, prevented any operation for drainage as performed by Mr.

[1] *Glasgow M. J.*, vol. xl., 1893, p. 418.
[2] *Birmingh. M. Rev.*, vol. xxxii., 1892, p. 205.
[3] *Med. Week*, vol. ii., 1894, p. 133.

Harrison. Had we been able to operate earlier, before suppurative nephritis was set up, life might have been saved, and could I have foreseen the onset of the nephritis so soon after admission I would not have been content to wait even though the urine was so markedly improving in character.

Mr. Targett has recently described vesical sacculi very fully in a paper on "The Pathology of Cystic Tumours connected with the Bladder."[1]

C. A. MORTON.

OBSTETRICS.

Transcendental philosophers who are fond of maintaining that parturition and the processes which lead up to it are purely physiological must often find it difficult to explain the complications of pregnancy. These may in the language of the text-books be pathological exaggerations of physiological processes, but in too many instances the pathology has so overshadowed the physiology that we are face to face with veritable diseases.

Recent communications have directed fresh attention to some of these. Among the most valuable of these contributions to periodical literature is that of Dr. Edward P. Davis on "Toxæmia of Pregnancy."[2] He says that the failure of the kidneys to excrete the additional quantity of waste products in the pregnant woman is not in itself sufficient to explain the condition in which the evidence points strongly to an acute intoxication with the products of bacteria. This condition is not of necessity evidenced by the presence of albumen in the urine. Dr. Davis lays special stress on the importance of carefully estimating the amount of urine secreted, and on the value of microscopic examination of urinary sediments. If there are present symptoms of toxæmia, such as a gradual diminution in the excretions, both solid and liquid; loss of appetite, with complaint of slight nausea or gastric distress; headache, a clammy skin, or, in some instances, a dry skin with deficient perspiration, and lassitude, mental and physical; and if it is found that the percentage of urea has fallen below 1.5, the excretory processes should be stimulated by promoting the action of the kidney, liver, intestine, skin, and lungs. Examination of the urine in 84 cases was frequently made before and after parturition. Marked diminution in the quantity of urea occurred only in cases having, or threatened with, eclampsia or manifesting symptoms of marked toxæmia. The diagnosis of toxæmia is greatly aided by attention to the patient's nervous system, which is not in a condition of simple apprehension but of intoxication varying in degree. Toxæmia may be present even when the examination of the urine fails to reveal either casts, albumen, or marked deficiency in urea.

[1] *Brit. M. J.*, 1893, vol. ii., p. 218.
[2] *Am. J. M. Sc.*, vol. cvii., 1894, p. 147.

For treatment, calomel and soda, not potash, should be occasionally given, and also purgatives such as colocynth, which produce free and liquid stools. A hot or warm bath should be taken at night, and the patient should drink a small quantity of warm water. Sedatives should be avoided. The patient's need is for elimination, and that should be prompt and thorough. If eclampsia threaten, the uterus should be at once emptied under chloroform.

* * * *

Not the least of the troubles of pregnancy is persistent vomiting, and although happily the cases are rare in which labour has to be induced on account of this condition, much distress is occasioned by this complication; and if any recent additions to the therapeutic armamentarium can be employed for its relief, due prominence should be given to them.

The Hon. Dr. Creed reports[1] the case of Mrs. B., aged 22, whom he had seen in consultation. Dr. Jamieson, the ordinary attendant, had been requested to see her when she was nearly eight months pregnant with her third child. She was vomiting almost everything she took. The usual drugs recommended for the purpose of checking vomiting had no effect. In the course of a few days she gave birth to an eight months' child that had been dead some days. The vomiting persisted, and six days after the premature labour Dr. Creed saw her. She was lying with a towel placed under her mouth, having become too weak to be able to use a basin into which to vomit. She was retching incessantly. The tongue was very red and dry, the lips cracked, the pulse rapid and weak, and she appeared to be almost moribund. Dr. Creed hypnotised her, and made suggestions that the retching should cease and that she would not feel any further nausea, but have a desire for food. Immediately after she said she felt better. She did not vomit during the next three days. But on the next day she vomited twice after taking champagne. Suggestions whilst she was hypnotised were again successful. From the time of the first hypnosis the patient began to improve, and about ten days after was up and about. Hypnotism, as a therapeutic measure having had good results, should be tried in any case of obstinate vomiting during pregnancy before operative proceedings are undertaken.

Dr. Clara T. Dercum divides into two classes the various theories that have been proposed in regard to the etiology of hyperemesis gravidarum. In the first class she places all those cases in which are present any local lesions, whether uterine or gastro-intestinal. In the second class occurring in women of a neurotic type are the cases which present no local lesion, and which are the most serious in their nature. When the vomiting is accompanied with nausea and ptyalism, showing that the higher nervous centres are involved, the condition may at any

[1] *Australas. M. Gaz.*, vol. xii., 1893, p. 370.

time become grave. Dr. Dercum records a case that came under her own observation which presented unusual features. A neurotic woman, pregnant for the third time, had vomiting, nausea, and ptyalism commencing about a fortnight after conception and continuing for about four weeks, at the end of which period the symptoms were present night and day, and independent of food or drink. The prostration was extreme. The question of inducing abortion was considered, but instead it was determined to try feeding by the bowel, combined with rectal and hypodermatic medication. In three days her condition had improved, and six days later the patient suddenly ceased vomiting after eating a lamb chop. The record does not say that it was on account of this. After five days, all medicine and food was taken by the mouth and retained. But in little more than a fortnight the bad symptoms returned, and the general condition again became alarming. As there was no improvement with the same kind of treatment as before, abortion was induced at about the twelfth week from the beginning of pregnancy. Twins were delivered: the placental tissue was adherent. The vomiting ceased immediately after the expulsion of the contents of the uterus, but recovery was complicated by inflammatory pelvic troubles, and the patient was not well for a couple of months.

Dr. Dercum seeks to explain the subsidence of the symptoms in the course of the pregnancy by the fact that as little nourishment was taken for some time the fœtuses developed very slowly, and thus the cause of the nervous manifestations remained in abeyance. But this theory can not be sound, as the serious symptoms were developed in the early part of the pregnancy.

Dr. Boardman Reed also relates[1] a case in which serious vomiting was present, and subsided only to return with greater force. When the cervix was being dilated, in the hope that this would stop the vomiting, labour came on and a three months' fœtus was expelled. The patient sank into a condition of extreme exhaustion with high fever and died. Dr. Reed says that the life of a wife and mother is infinitely more important than that of an unborn babe, even when known to be alive and near full term, and to risk such a life out of consideration for a fœtus ought not to be thought of for a moment.

Dr. John G. Cecil refers[2] to two recent deaths from this cause, and records a case which he himself had seen in consultation. The patient had persistent vomiting from the time of her fourth conception. When first seen by Dr. Cecil she was in the third month of her pregnancy. The usual remedies had been given unsuccessfully. The uterus was retroverted and tender. As it was thought that the displacement was the

[1] *Med. News*, vol. lxiv., 1894, p. 47.
[2] *Med. Age*, vol. xii., 1894, p. 234.

cause of the vomiting, efforts were made to keep the uterus in position, but these were of no avail. The general condition got worse. An attempt to induce abortion failed, and the patient died undelivered. Dr. Cecil says that this case is one more confirmation of the conclusion of those who consider that patients often die from this complication because the abortion has not been induced early enough. The exact time when this should be done must always be a matter for serious consideration. Severe and protracted vomiting often ceases spontaneously or in reply to appropriate treatment; but no case should be allowed to approach a typhoid state, when interference would be too late.

The last Report of the Rotunda Hospital records[1] a death from excessive vomiting in pregnancy. The patient, who was six months pregnant with her first child, was admitted in a collapsed state. She had been vomiting for more than a month. All medicines had been without avail. She died undelivered two days after admission.

L. M. GRIFFITHS.

Reviews of Books.

Text-book of Ophthalmology. By Dr. ERNEST FUCHS. Authorised Translation from the Second German Edition. By A. DUANE, M.D. Pp. xiii., 788. London: H. K. LEWIS. 1893.

This volume enables all who cannot read German to become acquainted with the teaching of one of the great leaders in ophthalmology, and to study an accurate and conscientious translation of one of the best books that has ever been written on this department of surgery. Dr. Duane has added a few foot-notes to amplify the text, and an appendix with illustrations of instruments commonly used in the various operations on the eye.

The subject is divided into four parts: I. Examination of the Eye, objective and functional. II. Diseases of the Eye. III. Anomalies of Refraction and Accommodation. IV. Operations. We believe this book was originally compiled as a text-book to Dr. Fuchs's lectures and demonstrations, and to prevent the necessity of note-taking in class. Four-fifths of the book is devoted to Diseases.

Conjunctivitis trachomatosa is admirably and very fully dealt with; the following conclusions are arrived at: "There is but one kind of trachoma, which, however, appears under various forms. The ultimate origin of the disease is probably

[1] *Tr Roy. Acad. M. Ireland*, vol. xi., 1893, p. 360.

referable to the secretion of genitals affected with gonorrhœa; this secretion produces in the human conjunctiva acute blenorrhœa, which passes into chronic blenorrhœa. The secretion of the latter produces in a healthy eye directly a chronic inflammation, trachoma, which then by a repeated process of transfer spreads of itself." "Trachoma can never arise without infection." "Trachoma is very seldom met with in children. Follicular conjunctivitis is found chiefly in young people." Follicular catarrh can arise without any infection whatever; *e.g.*, atropine instillation. In histological structure no thoroughgoing distinction can be found between follicles and trachomatous granulations, but the course of the two diseases is distinct. Follicular catarrh is only slightly associated with papillary hypertrophy of the conjunctiva; it never leads to shrinking, to pannus or other sequelæ; it is a disease perfectly devoid of danger, one which even without any treatment finally gets well and leaves no trace behind. Dr. Fuchs treats trachoma by nitrate of silver solution during the inflammatory stage, and by blue-stone stick when it becomes chronic. He has no confidence in excision or expression of the outgrowth or in the cautery, or in removal of folds of conjunctiva. The sections on "Vernal Catarrh" and on "Conjunctivitis Exanthematica" are interesting. Our experience of eye affection in relation with acne or eczema has been that the cornea is usually implicated as well as the conjunctiva. Dr. Fuchs lays no stress on this point.

The chapter on diseases of the cornea is equal to the recognised difficulties of the subject. Keratitis is subdivided into suppurative and non-suppurative. The two categories are distinct, not only in their consequences, but also in their clinical aspect. Dr. Fuchs speaks highly of the curative action of the cautery in corneal ulcers, but has little confidence in the use of eserine as opposed to atropine. The prognosis of a "Foreign body in the eye" is carefully considered. Of course we should all agree that, as a rule, the eyeball requires excision; but there are exceptional cases where this need not be done if the patient is very averse to losing an eye which to external appearance is not damaged. Fuchs says, whether a body which penetrates into the eye is well borne by it or not depends upon the following circumstances: (1) Whether it is *aseptic* or not. (2) Its chemical character. Metals which, like lead and the noble metals, probably do not become oxidized in the tissues of the eye, are comparatively harmless compared with copper or iron. (3) Its weight and volume. (4) The tissues of the eye vary in respect to their tolerance of foreign bodies. Under "Iridocyclitis Sympathica," however, he says: "Most emphatically requiring enucleation are eyes which are suspected to contain a foreign body."

A good description of the anatomy of the uvea, its blood-vessels and lymph-passages; of the nourishment of the eye,

and intraocular pressure; the development of the eye; and the participation of the uvea in the visual act, precedes the chapters on "Diseases of the Iris and Ciliary Body, and of the Choroid." While giving full credit to Deutschmann's experiments upon the method of transmission of sympathetic ophthalmitis, Fuchs concludes: "Whether the inflammation produced in this way is identical with sympathetic inflammation in man has not yet been certainly established. We shall have to wait for further proof before we can accept as perfectly certain the theory of transmission of the inflammation by way of the optic nerves."

Throughout the book reference is very rarely made to any English author. The chapter on "Glaucoma" is good, but would be better if a more detailed notice had been given to the careful investigations and scientific deductions of Priestley Smith in support of Knies and Weber's theory of obstruction at the filtration angle.

One of the best chapters is on "Disturbances of Motility of the Eye." It is clearly and fully written, and profusely illustrated by good diagrams. The tests for muscular insufficiency have been improved since these chapters were written; but on all matters relating to the ocular muscles, Fuchs is a well-recognised authority.

Under "Myopia" we find the generally accepted views regarding the causation of the disease. "Nearsight is an attribute of culture." "In the country we encounter fewer people with glasses than we do in the city." "The schools are the main hotbeds for the propagation of nearsightedness." "The school most dangerous for eyes is the high school." "Continuous employment of the eyes upon fine work exerts the same influence as do schools."

Dr. Fuchs insists that old people should not be confined to bed, and that in them the better eye should be left uncovered. He is an advocate of exenteration of the eyeball or even of wearing an artificial eye over the shrunken eyeball rather than its enucleation for cosmetic reasons; but he admits that irritation of the stump in many cases results. He is in favour of a small iridectomy in the extraction of cataract, and has a severe dread of any tendency to a prolapsed iris under any conditions.

In conclusion, no book can be better recommended either for the student or for the practitioner of medicine.

The Diseases of Childhood (Medical). By H. BRYAN DONKIN, M.D. Pp. xiv., 433. London: CHARLES GRIFFIN AND COMPANY, LIMITED. 1893.

If a guarantee for the vitality of a subject is to be found in the quantity of its literature, then the study of disease in children, or, as it is fashionable to call it, the science of pediatrics, is very full of life indeed.

At short intervals (we had almost written every month or so) a work is presented to the medical profession purporting to be written by some authority upon the subject, and treating of those diseases generally considered to be peculiar to children. These productions vary in size and contents: in size from the small hand-book or student's guide to the overwhelming encyclopædia in many volumes; and regarding their contents may be roughly divided into two classes,—first and most numerous, those belonging to the "paste-and-scissors" division, mere repetitions of accepted theory and practice, serving no purpose except to multiply needlessly medical books and advertise the "authors;" and second, those works which are useful guides indeed, books giving the results of years of hard clinical study, *original* ideas and research, and are valuable and welcome additions to our knowledge of disease in children. To this latter class the book before us undoubtedly belongs. The author, who has the advantage which the double position of physician to a general *and* a children's hospital gives him, whilst treating his subject with that fulness of detail and accuracy of judgment which his position as a specialist places at his command, adds to these qualities a breadth of view and a general grasp of the subject in relation to the science of medicine as a whole which are often wanting in works written on special branches of our art. For the masterly manner in which they are handled, we would particularly commend attention to the following chapters: "Infantile Wasting," "Affections of the Fauces," "Intestinal Obstruction," and "Spasmodic Disorders."

With due regard to Dr. Donkin's preface, we do not think that any hand-book on disease in children intended for students can be considered complete without a chapter on Smallpox, a subject which in these days of advancing "public health" is of increasing interest and importance: and we were hardly prepared to find in the treatment of constipation of young children, injections of glycerine entirely ignored; or the management of acute tonsillitis summed up without any mention being made of small doses of tincture of aconite. The book however, taken as a whole, is one we can heartily recommend. It is well printed; a good index and an appendix on the "Periods of Incubation and Contagiousness of certain Infectious Diseases" add to its value.

A Manual of Medical Treatment or Clinical Therapeutics. By I. BURNEY YEO, M.D. Two Vols. Pp. 631 and 744. London: CASSELL AND COMPANY, LIMITED. 1893.

The author gives a short account of the leading features, symptoms and pathological changes of each disease, and formulates the indications for treatment. Then follows the account of the treatment which should be adopted. This plan commends itself as the most suitable one for dealing intelligently

with disease, and for avoiding the administration of drugs without sufficient reason. The only criticism we have to offer on the mode in which this plan is carried out is that, from the necessity of bringing the book within reasonable bounds and of not impairing its value for ready reference, the account of symptoms is often very brief, and thus loses much of its value. We are disposed to think that it would be sufficient to give fully the indications for treatment. It will thus be seen that the book is no mere compendium of drugs, but a thorough and scientific study of treatment in all its branches of general, medicinal and dietetic management. When necessary, some account is given of the indications for and mode of carrying out such special forms of treatment as massage, electricity, and hydrotherapeutics.

We find here a very satisfactory guide to all forms of treatment, and the character of the advice given, taken as a whole, is worthy of much praise. The reader is not left to choose out of a number of methods recommended, but is told from which he may expect his patient to derive the most advantage. This is as it should be; when a man turns to a work of this kind he wants first some definite advice for the ordinary type of case, and then secondly to know what should be done in the more complicated or unusual cases.

Of course one cannot expect to agree with the author as to all details of treatment, on many questions of therapeutics there is just ground for difference of opinion; but on all main points we feel sure that the author is a trustworthy guide, and that his statements will be found accurate. We have put the book for some little time past to the practical test of referring to it for the treatment of cases as they arose in the ordinary course of practice, and in every case we were satisfied with the information supplied.

We feel that we can thus cordially recommend the book as a useful and practical one, based on sound scientific principles, well adapted to the needs of everyday work, and supplying a distinct want in medical literature. In the limits of this notice it is impossible to discuss the details of a book of this sort; but after a thorough perusal of it, we are sure that it will be found a most satisfactory and valuable work of reference, for which we are emboldened to prophesy a great success. It possesses that essential feature for a book of this kind, a good index; the print is clear and good, and the volumes are of handy size.

Lectures on the Surgical Disorders of the Urinary Organs. By REGINALD HARRISON, F.R.C.S. Fourth Edition. Pp. xiv., 588. London: J. & A. CHURCHILL. 1893.

The subject-matter included in this volume originally formed portions of successive courses of lectures delivered at the Liver-

pool Royal Infirmary, together with lectures delivered before the Medical Society of London and the Royal College of Surgeons. The whole forms a somewhat ponderous volume, in which the lecture form has been maintained throughout—a method which is somewhat tedious to the reader, although it may possess some compensatory advantages for the writer. Mr. Reginald Harrison is so well known as an authority on all matters relating to the surgery of the urinary organs, that it is unnecessary for us to call attention to the excellence of the matter contained in these lectures. They are full of good practical suggestions, illustrated by cases from the author's experience, and will amply repay a careful perusal. The illustrations are largely taken from the instrument-maker's catalogue; but there are some good original drawings and a few very bad ones, among which we would especially notice one on page 160. We are somewhat surprised at the very faint praise with which Mr. Harrison speaks of the operation of litholapaxy in children. He still clings to the old operation of lateral lithotomy, which we suppose is only natural in one who has practised it so successfully. We shall have to wait until a new generation of surgeons has risen up in this country before this grand old *tour de maître* is finally condemned to the limbo of forgotten methods of operating.

Healthy Hospitals. By Sir DOUGLAS GALTON. Pp. xi., 287. Oxford: At the Clarendon Press. 1893.

This work does not embody the detailed requirements of hospitals for special diseases, but is limited to explaining the general principles upon which the healthy construction of all hospitals must be based. In this endeavour the author has been, on the whole, successful, though some points receive inadequate treatment; as, for instance, the "drainage" of the ward-unit, a point of no small importance, which is summarily dismissed in two pages. The chapters on "Ventilation" and "Warming" are, on the other hand, very full, and include descriptions of the latest developments of mechanical ventilation. The remarks on the comparative value of ventilation by mechanical and natural means, and on the advantages of simplicity in this as in other points of hospital design, are judicious and well stated. We miss, in the account of methods proposed for the cremation of outgoing air from infectious disease wards, any mention of the failure of this method at the Bradford Smallpox Hospital, an omission of some importance. As a whole, the work supplies trustworthy and useful information upon a variety of points essential to the construction of healthy hospitals.

A Treatise, Practical and Theoretic, on Cancers and the Cancer Process. By HERBERT SNOW, M.D. Pp. xv., 384. London: J. & A. CHURCHILL. 1893.

The first thing which strikes us in glancing over this treatise is the abundant reference to a few previous books and papers by the same author, who evidently desires that the reader should duly appreciate his labours.

On turning to the discussion of still doubtful points, and in particular to that of the parasitic theory of cancer, we find the following: "The reproduction of Lieberkühn's follicle structure in an aberrant form throughout the secondary metastases of gastric and intestinal cancer is one of the most obvious and overwhelming arguments which controvert the microbe-theory of cancer genesis. It is impossible to believe that an organism introduced into the body from without can possibly cause an elaborate tissue arrangement to be thus copied in distant parts" (p. 161). To the ordinary mind it would appear that the resemblances of metastases to the original growth is merely the result of heredity, and cannot be cited as evidence either for or against a parasitic theory. On page 9, regarding Ruffer's researches, Dr. Snow says: "There is no evidence in favour of the parasitic nature of the bodies therein described." This is rather "flat," but inconclusive.

Dr. Snow's own theory is that the cancer process consists essentially in a local cell-rebellion, certain cells casting off their allegiance to the central authority of the nervous system—a theory which certainly has the merit that no one can either prove or disprove it.

For the rest, the book first deals with the structural anatomy of particular species of cancer, and secondly with malignant disease in particular organs or parts, with the most fitting measures of cure or relief.

Tumours, Innocent and Malignant. By J. BLAND SUTTON. Pp. xvi., 511. London: CASSELL AND COMPANY, LIMITED. 1893.

It is always a pleasant task to review a book written by Mr. Bland Sutton, because the originality of his work distinguishes it at once from the mere compilations of so many authors. This book on tumours is no exception to the rule. From the author of *Dermoids and Ovarian Tumours* we expect much when he writes on tumours in general; and as we examine this book our expectations are abundantly realised. Of course much that Mr. Bland Sutton has previously told us is given again, but here every form and variety of tumour is described. By far the greater part of the volume is taken up with the pathology of tumours, but their treatment is also given. The book is like the rest of Mr. Sutton's works, particularly well

illustrated, and contains several good coloured plates. Many of the drawings are original, and not a few are from specimens in the Middlesex Hospital Museum. Amongst the facts with regard to tumour pathology which have long been recognised, we come every now and again on information which has only recently been obtained, very frequently by the writer himself. All the recent work which has been done in connection with the pathology of tumours, both in this country and abroad, has been utilised to supply us with a text-book thoroughly up to date.

Perhaps some will regret that the chapter devoted to the cause of tumours is not a long one. We turned to it with much interest, and at first we were almost inclined to regret that it did not go more fully into the subject; but after all, but little is really known about the cause of tumours. Theory after theory arises, lives for a short time, and then almost imperceptibly expires, and observations on which to build a surer foundation of knowledge only slowly—very slowly—accumulate. Hence, perhaps Mr. Sutton has been wise to limit his attention to Cohnheim's interesting theory of the origin of tumours from minute portions of embryonic tissue remaining undeveloped amongst the tissues.

The chapters on "Tubulo-cysts" and "Tubulo-dermoids" are some of the most interesting in the book. They show how dermoids and other cysts may arise in unobliterated remains of fœtal structures. Mr. Sutton still holds the view of Coblenz and Doran, that papillomatous cysts of the ovary arise from remains of the Wolffian body, though Olshausen and Whitridge Williams contend otherwise. In the classification of tumours epithelioma is separated from cancer, which is not regarded as simply a malignant epithelial tumour, but rather as a malignant adenoma, while epithelioma is described as a malignant wart. Implantation cysts, or traumatic dermoids as they have been called, are very fully described in a separate chapter, which from the attention given to iritic and corneal cysts of this nature must be of interest to the ophthalmic surgeon as much as to the general surgeon.

This book is one of which we shall constantly be in need, as rare tumours require elucidation; it is, in fact, an encyclopædia of knowledge, with numerous references to recent original work, a very large proportion of which has been done by Mr. Bland Sutton himself.

A Text-book of the Theory and Practice of Medicine. By American Teachers. Edited by WILLIAM PEPPER, M.D. In Two Volumes. Vol. II. Pp. 1046. Philadelphia: W. B. SAUNDERS. London: F. J. REBMAN. 1894.

We are glad to welcome the second volume of a work "which represents truly the best teaching of the science and art of medicine at the present time," and to congratulate the publisher

on the fact that he has been able to complete the text-book without delay. Having recently reviewed the first volume (March, 1894, p. 45), we need not describe the general appearance and purport of its twin brother. We have here 38 monographs by eight authorities, whose names are well known beyond the limits of their own country. It has been a real pleasure to read some of these condensed and complete accounts of what is known on the respective topics. It is difficult to criticise, and we do not wish to find fault without reason; but in future editions we should like to see further details on the treatment of phthisis, as we cannot accept the statement that climate and feeding are everything: antiseptics have now an immense weight of evidence in their favour, and cannot be dismissed with a passing and depreciatory reference. We also object to the following quotation, which expresses the writer's view on the treatment of hæmoptysis: "The insistence of absolute quiet demoralises the patients, keeping the patients on a low diet unnecessarily reduces their strength." We hold that both points are needful in combating the imminent peril of a large hæmoptysis, and we have no right to assume that "the bleeding will stop no matter what is done." Maintenance of quiet and physiological rest should be furthered by the use of morphia, the one drug needful.

A careful index of 45 pages considerably enhances the value of the work.

Cancer, Sarcoma, and other Morbid Growths considered in relation to the Sporozoa. By J. JACKSON CLARKE, M.B. Pp. 97. London: BAILLIÈRE, TINDALL, & COX. 1893.

This book contains an account of the various researches made by many men into the question of the presence of parasitic protozoa in cancer, and in particular a rather egotistical and cock-sure series of assertions as to the author's own observations.

The historical part is well done, containing perhaps the best account in English of the evolution of our knowledge of the subject. The tone of the book is perhaps to be regretted; but a little to be understood on recalling how heavily—and, as recently-published facts seem to show, somewhat unjustly—the Pathological Society came down on the author for some of his statements.

Although the book does not profess to be anything more than a reprint of Journal articles, more use could have been made of it if it had been provided with a table of contents and an index.

Syphilis: Its Treatment by Intra-muscular Injections of Soluble Mercurial Salts. By EDWARD COTTERELL, F.R.C.S. Pp. 36. London: JOHN BALE & SONS. 1893.—The author here advocates the treatment of syphilis by the intra-muscular injection of sozoiodol of mercury. He employs a needle of platino-

iridium, and uses great care in sterilising it. The injections are made into the gluteal region, and are repeated once a week for about six or seven weeks, and then at less frequent intervals for eighteen months or two years. The objections to this method of treatment are obvious, but there are many compensating advantages.

Dissections Illustrated. By C. GORDON BRODIE, F.R.C.S. With plates by PERCY HIGHLEY. In four parts. Part II.—The Lower Limb. Pp. 74. London: WHITTAKER & Co. [1893.]—We have had occasion to notice[1] favourably the first part of this work, and we now welcome the second part as a worthy continuation of the former. The plates of the foot seem to us of special excellence, showing with great accuracy the relative position of the several parts. We can recommend the work to all students of anatomy.

Guy's Hospital Reports. Vol. XLIX. Pp. cxxiii., 505. London: J. & A. CHURCHILL. 1893.—The present volume opens with biographical notices of John Hilton and Edward Cock, written by Mr. Jacobson and Mr. Clement Lucas respectively, and illustrated by autotype portraits of the illustrious surgeons of whom they treat. These articles contain much interesting gossip concerning the personal history of Guy's Hospital during the last half-century. Mr. Jacobson had already done much to perpetuate the memory of Hilton by editing two editions of his classical work *Rest and Pain*, and he has now shown still further appreciation of Hilton's genius by writing this account of his life and work. The article does honour alike to author and subject. It is written with all the literary polish with which the writer is so richly endowed, and will be read with the keenest delight by all Hilton's old pupils, as well as by those who only know him as a name and tradition. Mr. Lucas's article brings before us in a graphic form memories of the genial surgeon who has constantly haunted the precincts of Guy's Hospital during the lifetime of the oldest among us, and concerning whom "many a humorous story was told, of which he probably was often as remote an author as Horace or Juvenal; for to a wit of established humour all new witticisms are liable to be attributed by those who dare not father their own offspring, and in the medical world perhaps no one has suffered more than Mr. Cock from this affiliation of bastard stories." Of the purely clinical topics, perhaps the most important is one "On the results of one hundred and thirty cases of Excision of the Knee," by Mr. H. G. Howse, with an analysis of the cases arranged in a tabular form by Dr. G. Newton Pitt. The operations were all performed in the Evelina Hospital and at Guy's during the years 1873 to 1884, and no later cases are given, in order that the results of the operations as shown by the condition of the limbs many years afterwards may be added. Mr. Howse is well known

[1] *Bristol M.-Chir. J.*, vol. xi., 1893, p. 123.

to have excised more knee-joints than any other living surgeon, and wonder has often been expressed that some authentic record of his statistics had not been published; the results of the 130 cases now before us will therefore be read with much interest; and we think Mr. Howse has reason to be gratified with the result of his work. Among the other articles, we would especially call attention to one on "Peritoneal Sanguineous Cysts and their Relation to Cysts of the Pancreas," by Dr. Theodore Fisher, Registrar to the Bristol General Hospital, giving particulars of a great many collected cases of this curious affection.

Saint Thomas's Hospital Reports. New Series. Vol. XXI. Pp. xxxviii., 535. London: J. & A. CHURCHILL. 1893. The preface to this volume gives an account of the new buildings at the Medical School attached to the Hospital, on which a sum of £16,000 has been spent. In addition, the physiological laboratory has been rebuilt and refitted, in order to adapt it to requirements for teaching practical physiology to a large class. These additions very materially increase the accommodation at the Medical School, and speak well for the enterprise of the teaching staff. The book contains many valuable papers. There is an interesting memorial notice of the career of one of St. Thomas's most distinguished surgeons, Le Gros Clark. The first paper, a very able account of acute infantile hemiplegia, is from a pen that will alas! write no more. Dr. W. B. Hadden's early death has deprived us of one who promised to attain the highest distinction in the field of neurology. Dr. Cullingworth's valuable paper on "Effusions of the Blood into the Fallopian Tube" is illustrated by some beautiful coloured plates. Dr. Hawkins and Dr. Hector Mackenzie contribute papers on the "Pathology of Perityphlitis" and "Diphtheritic Paralysis" respectively. Drawings of the microscopical appearances are added in the former case, and the paper is a timely contribution to the pathology of this at present much debated affection. Prof. Sherrington gives a useful short note on some points of practical importance connected with the investigation of the knee-jerk. Amongst other papers, there is one by Mr. Makins and Mr. Abbott on the "Treatment of Aneurisms of the Arteries of the Extremities," which is based upon the study of 57 cases. Dr. Percy Smith, in an article on "Sulphonal and Hæmatoporphyrinuria," relates three cases in which this symptom, together with gastro-intestinal disturbance, was directly due to the administration of sulphonal during a considerable period. The more commonly described symptoms of sulphonal poisoning were absent. Dr. Smith thinks that the drug should not be administered "to patients suffering from melancholia, with refusal of food, and evidences of defective intestinal action." Mr. Pitts gives a very interesting account of the "History of Transfusion," of the most speedy method of carrying out this procedure, and of a number of recent cases in

which it has been performed. Dr. Sharkey and Mr. Clutton report the successful removal of a pancreatic cyst, and the volume concludes with the usual account of the work done in the medical, surgical, and special departments of the Hospital during the year.

Sciatic Neuritis. By ROBERT SIMPSON. Pp. 46. Bristol: JOHN WRIGHT & Co. 1893.—This essay sums up what is known of the inflammatory form of sciatica. The normal nutritive changes in the nerves, their degenerative changes, and the reconstructive process are briefly described, and then the nature and action of the various therapeutic agents which favour the restoration of the damaged tissues are considered. Rest, counter-irritation, and massage have given satisfactory results. "By massage, I mean the scientific and skilled manipulations of operators who thoroughly understand what they are doing, and who possess a fine sense of appreciation of the important molecular nutritional and structural changes which they are setting into active operation." Would that we could always secure such massage as this for our patients!

The Stœchiological Cure of Consumption. By JOHN FRANCIS CHURCHILL, M.D. Third Edition. Pp. 38. London: DAVID SCOTT. 1893.—Dr. Churchill appears to adhere to the doctrine that medicine is one of the most backward of all the applied sciences. He endeavours to remove the reproach by making what he conceives to be a great discovery, and after mature reflection he decides that he will not make this public. His decision does not advance the science of medicine, and his methods are beyond the pale of serious criticism.

A Guide to the Examination of the Urine. By J. WICKHAM LEGG. Seventh Edition. Edited and Revised by H. LEWIS JONES, M.D. Pp. 139. London: H. K. LEWIS. 1893.—This edition has been carefully revised, and needs no commendation. Its popularity is the best proof that it is what the student commonly requires; it encourages his abhorrence of too much detail.

Sciatica. By A. SYMONS ECCLES, M.B. Pp. 88. London: MACMILLAN AND Co. 1893.—This little book is a record of clinical observations on the causes, nature, and treatment of sixty-eight cases of one or other of the group of sciatic neuralgia, perineuritis or neuritis. Amongst the causes of the malady he does not hesitate to call attention to what is frequently forgotten or ignored, that "of all the products of Western civilisation, the water-closet, such as one finds in the majority of dwelling-houses, may be regarded as one of the most fruitful sources of disease," and he has learned to regard as a necessary addition to the impedimenta of persons who have suffered from sciatica a square piece of felt to cover the seat and slightly overlap the edge, a hole being cut in the centre. He further adds: "Convalescents who are able to leave their beds

for the purposes of nature should use a commode draped with a blanket, near whose upper edge a hole has been cut out corresponding in size with the rim of the pan, the blanket being so arranged that it covers the seat of the commode, falls on either side, and forms a mat on the floor in front of the night-stool, so that the patient may step out on the blanket and fold it round the lower extremities, thus avoiding all possibility of exposing the affected limb to sudden or continued cold impressions." The author does not approve of much medication, but prefers treatment by rest, warmth, position and massage, followed by passive and active exercises, for the details of which we must refer the reader to the book itself, on consulting which he will not, we think, be disappointed.

Étude sur les Abcès chroniques enkystés de l'Amygdale. Par le Dr. EUG. PEYRISSAC. Pp. 74. Paris: OCTAVE DOIN. 1893.—At the suggestion of Dr. Moure, the author of this pamphlet has collected and reviewed several cases of chronic abscess of the tonsils recently occurring in his laryngological clinic. Though this is a condition which is well worthy of attention, it scarcely merits the separate chapters on the general anatomy and physiology of the tonsil and on the historical aspects of the subject discussed. The author adduces evidence showing that chronic abscess of the tonsil has its origin in former attacks of acute tonsillitis and has no connection with tuberculosis. It is probably the result of infection spreading from a collection of cheesy matter in a tonsillar crypt to the deeper tissues of the tonsil, giving rise to a variety of chronic abscess. The symptoms of the fully-developed condition are, moderate pain, a sense of swelling in the throat, with difficult or even painful deglutition; on examination, one may sometimes observe enormous swelling of the tonsil, which may present the usual characters of a cyst. The clinical notes of ten cases conclude this interesting monograph.

Higiene de la Educación. Pp. 62. Barcelona: HENRICH Y C^{A}, 1893.—This is a "Contestación' or debate on the hygiene of education by Drs Durán and Bertrán before the Medical Society of Barcelona, and is remarkable for the great length at which the subject is discussed and the suggestions therein contained. Parents and guardians are directed to insist upon perfect hygienic surroundings of schools to which children under their care are sent. It is recommended that gymnasia attached to schools should be in the open air. Much emphasis is laid upon the importance of manual training, a course of which would without doubt be particularly useful to the surgeon. We are told that the task of education is work which is specially patriotic, because its mission is to form men and to form citizens, and as the next generation is the hope of a country every care should be taken that the hope may be realised.

Burdett's Hospital and Charities Annual, 1894. Edited by HENRY C. BURDETT. London: THE SCIENTIFIC PRESS (LIMITED.) —This book has proved itself a necessity for all who in this busy age require without much laborious searching a record of general and statistical information of British, American and Colonial hospitals and asylums, medical schools and colleges, religious and benevolent institutions, dispensaries, nursing and convalescent institutions. This information would have been still more valuable if Mr. Burdett had received more help from the officials of institutions, many of whom, we are sorry to see, have not afforded him the information which is necessary to make a book of this kind perfect. Mr. Burdett is always on the war-path on the question of the cost of hospital management, and he devotes a large space of this volume to its consideration. Mr. Burdett is evidently one who pays some attention to the reviews of his work, and we are therefore surprised to find that he has repeated, although notice was directed to it last year, the error of the relation of the Medical School to the Bristol Royal Infirmary and the Bristol General Hospital.

The Medical Annual. 1894. Bristol: JOHN WRIGHT & Co.— This volume, which is now in its twelfth year, is full of interesting reading, and does great credit to the various editors and contributors who are responsible for it. It is practically indispensable to the busy medical practitioner who has not the leisure necessary for reading the original articles of which this is a *resumé*, as it gives him at a glance most of the suggestions for treatment that have been published during the year. Both in the quality of the matter and in the way it is put before us by the publishers it is a worthy successor to the volumes that have preceded it. It is not surprising that we have noticed some mistakes in spelling the numerous names of authors quoted; *e.g.*, described as Brysan Delevan and Goodheart, the persons referred to would scarcely know themselves. We are glad to see that Bristol still takes part in its authorship in the persons of Drs. Shingleton Smith and Watson Williams. It is a pity that the advertisements are placed as they are. In future issues none of these should be allowed to come between the title-page and the last page of the medical portion of the volume.

Proceedings of the West London Medico-Chirurgical Society. Vol. V. Pp. 122. London: BAILLIERE, TINDALL AND COX. 1893.—In addition to many papers of considerable interest, this volume contains the Cavendish Lectures on "Elimination and its Uses in Preventing and Curing Disease," by Dr. Lauder Brunton, and on "Some Points in the Etiology of Typhoid Fever," by Sir C. Cameron. Not the least interesting of the papers is that by Dr. Towers Smith on the treatment of Obesity. Our West London brethren seem to be rather behind the times. In this, their latest, volume, the most recent communication is dated July 8th, 1892, and the earliest is October 3rd, 1890. Surely a society which numbers 330 and prides itself on the value and

character of its work might issue an annual volume. A little more careful editing is also needed. On the cover the work is called "Transactions," and on the title-page "Proceedings." There is no table of contents, and Dr. Lauder Brunton's lecture is most curiously described in its title.

The Johns Hopkins Hospital Reports. Vol. III. Nos. 7, 8, 9. Report in Gynæcology, II. Baltimore: THE JOHNS HOPKINS PRESS. 1894.—This volume contains many interesting and valuable articles on gynæcological work, including cases where cœliotomy is required. The illustrations are numerous and well executed, and the statistics are carefully compiled. To show the extent and usefulness of the work here recorded, we have only to mention the analysis of 240 cases showing the importance of anæsthesia in the diagnosis of doubtful conditions of the pelvic organs, and a table of 512 abdominal operations since the last volume was issued. The report reflects much credit on its contributors and editors.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Vol. XIV.: SUTURES—UNIVERSALLY. Washington: GOVERNMENT PRINTING OFFICE. 1893.—We have to thank Dr. John S. Billings for another volume of this great work, without which no medical library can be looked upon as complete. This volume contains 10,124 author titles, representing 6,426 volumes and 8,850 pamphlets. The whole series of 14 volumes contains the gigantic number of 151,649 book titles and 462,165 journal articles. We congratulate the painstaking authors on the fact that they are so near the end of the alphabet, and ourselves that the work is sufficiently complete to be looked upon as a trustworthy friend who rarely fails to respond to any call.

When may Syphilitics Marry? By Dr. SCHUSTER. Edited and Translated by C. RENNER. London: F. J. REBMAN. 1893. —It is most difficult to say when syphilis is really cured, when the patients will never again show any symptoms or transmit the disease. The work before us is an earnest effort to form sound conclusions before answering the question put. Many of the recognised authorities are quoted, and the author weighs carefully their arguments, and states his own views in a clear and logical way. This little book is worthy of careful perusal. It has in Germany reached six editions in a comparatively short time.

The Treatment of Constitutional Syphilis. By OSWALD ZIEMSSEN, M.D. Pp. 70. London: H. K. LEWIS. 1893.—This booklet contains some useful hints, amongst them that the individual affected by syphilis should remain under the care of one medical man throughout the disease, even if it be at times advisable to consult a specialist for some peculiar phase of the affection. The author considers that, like other infectious diseases, syphilis is caused by a microbe,

and that the aim of treatment should be to kill the microbe or modify the soil in which it flourishes. "General treatment—curative, not preventive—should be commenced as soon as possible after infection." Mercury, of course, is the curative agent, the maximum dose being different for different patients. It is essential that the patient should have plain nourishing food, avoid all exertion, and live in fresh air. "The acknowledged mildness of the climate of Wiesbaden [where the author lives] makes it particularly suited for the purpose;" and as Wiesbaden also possesses baths, the author is in favour of thermal treatment associated with inunction of mercury. He considers that mercury cures the disease itself, while the iodide of potassium only causes the absorption of the products of the disease. There seems little that is original in the volume, which can scarcely be looked upon as a scientific treatise. It has neither table of contents nor index.

Teratologia. By J. W. BALLANTYNE, M.D. No. 1. April, 1894. London: WILLIAMS & NORGATE.—Those who have read Dr. Ballantyne's able work, *Diseases and Deformities of the Fœtus*, will welcome this quarterly journal, in the first number of which he has a valuable and well-illustrated paper on "The Fœtus Amorphous." A very interesting feature of the work is the portion devoted to the "Abstracts from Current Literature," which gives references to all recent writings on Teratology and in many cases refers to important points in these communications. The most interesting monstrosity described in the journal is that of the Devil himself. The mother during her pregnancy said, in a rage, "that she would rather have the Devil in the house than something offered her for sale;" and so the Devil came, and a very typical Devil he turned out to be, probably one whose anatomy would be interesting. We hope to have a description of it in a future number, but unfortunately he is still living. We need hardly say that the incident is described under the heading "Survival of Superstitious Beliefs with regard to Teratological Phenomena," and is only an amusing appendix to a very valuable journal.

The Students' Handbook of Gynecology. Edinburgh: E. & S. LIVINGSTONE. 1893.—The attempt to provide in 178 pages of small size and large type a "Handbook" of Gynecology must be foredoomed to failure. In this volume the result and the attempt are both bad. It is to be hoped that it will never find its way into the hands of any student or medical man seeking for light on this important branch of our professional work. The reader must not be altogether disappointed with the size of this volume; for in addition to the 178 pages of gynecology, the kindness of the publishers has supplied him with 36 pages of advertisements. We are not surprised to find that the author, contemplating his finished work, decided not to put his name to it; but he might have given it an index.

The Mineral Waters of Harrogate. By JOHN LIDDELL, M.D. Pp. iv., 62. Edinburgh: YOUNG J. PENTLAND. 1893.—"The celebrity which Harrogate has acquired by its medicinal springs tends to overshadow the capacities of the place as a health-resort." It has already acquired so good a reputation that it needs no puffing. It is nevertheless necessary that a knowledge of the chief characteristics of the climate and the waters of the eighty springs should be imparted to medical men who advise their patients to seek treatment in this region, and a perusal of this book will show that Harrogate occupies not only the highest position among the spas of England, but that it stands unequalled in Europe for variety of waters and their therapeutic range.

Alcohol and Public Health. By J. JAMES RIDGE, M.D. Second Edition. London: H. K. LEWIS. 1893.—A second edition of this book calls for little comment. Dr. Ridge's views on this subject, and the behaviour of his geranium cuttings, are now well known, and he maintains "that it is obligatory on the part of the defenders of alcohol-drinking to prove that it is harmless; and that till this is done, we should advise total abstinence as a certain means of preventing all the evils, small or great, which result from its use."

Introduction to the Catalogue of the Collection of Calculi of the Bladder. By Sir HENRY THOMPSON. Pp. 39. London: J. & A. CHURCHILL. 1893.—In the summer of 1892, Sir Henry Thompson presented his collection of calculi—upwards of one thousand in number—to the Hunterian Museum of the Royal College of Surgeons. A catalogue was presented at the same time, and the present work forms an introduction to this catalogue, giving some interesting particulars of the various operations performed by the author, together with statistics of mortality and other tables and details. Sir Henry Thompson has done more than any other living British surgeon to improve and perfect the treatment of stone in the bladder, and this record of his life's work will remain as evidence of his genius and industry.

Ancient Egyptian Medicine. Herophilus and Erasistratus. By JAMES FINLAYSON, M.D. Glasgow: ALEX. MACDOUGALL. 1893. —We were very glad to have in separate form these admirable papers, which we previously had the pleasure of seeing when they were published respectively in the *British Medical Journal* and the *Glasgow Medical Journal*. They were delivered as bibliographical demonstrations in the Library of the Faculty of Physicians and Surgeons of Glasgow, and form fitting continuations of Dr. Finlayson's demonstrations on Hippocrates, Galen, and Celsus. The papers are of great interest and are marked by considerable erudition. Fortunate is the institution that has Dr. Finlayson as its librarian. We hope to receive many similar contributions from his scholarly pen.

Science Progress. A Monthly Review of Current Scientific Investigation. Conducted by HENRY C. BURDETT. Edited by J. BRETLAND FARMER. Vol. I. No. 1. March, 1894. London: THE SCIENTIFIC PRESS LIMITED.—This periodical is due to the energy and liberality of Mr. Burdett. We say "liberality," as we should think it doubtful whether it will pay. This number contains a series of articles on various branches of science by recognised authorities, giving an account of recent progress along a particular line of investigation. The articles vary a good deal in interest—*e.g.* Dr. Halliburton's paper on "Chemical Physiology" is rather dry and a little like a collection of notes from a *Centralblatt*, whilst that of Mr. Howes on "Vertebrate Morphology" is written in an enthusiastic tone. The paper on "The New Theory of Solutions" is perhaps the most interesting; in it Mr. Rodger shows that recent researches point to the view that in dilute solutions, dissolved substances behave as if they were gaseous and diffused through the space occupied by the solvent. The difficulty of the periodical must be that the articles may become so specialised that most men will not be able to read and enjoy more than two or three in each number; but at present it is well worth buying.

Transactions of the Clinical Society of London. Vol. XXVI. Pp. xlvi., 265. LONGMANS, GREEN AND CO. 1893.—This volume has most interesting matter on a great range of subjects. Two papers on the subject of intra-thoracic suppuration from perforation of gastric ulcer, and one on double empyema are of especial interest.

Essentials of Minor Surgery, Bandaging, and Venereal Diseases. By EDWARD MARTIN, M.D. Second Edition. Pp. 166. Philadelphia: W. B. SAUNDERS. 1893.—We are not very much in favour of the question and answer method of imparting instruction; but we have nothing but praise for the subject-matter of this book, which is evidently appreciated, as it has quickly reached a second edition. There are 78 illustrations, most of which are very clear and good, while the letterpress is well written and to the point. The principal matters usually dealt with in works on minor surgery are well treated; but we fail to find any description of the numerous minor operations usually performed by house-surgeons or dressers, such as removal of foreign bodies from the eye and ear, plugging the nares, the use of the stomach-pump, &c. In our opinion, it would have been more useful, in such a work as this, to have supplied these omissions instead of filling up the book with a description of venereal diseases, which scarcely seems in the right place here. We can only suppose that the explanation of the combination is to be found on the title-page, where we notice that the author is a clinical professor of genito-urinary diseases, and at the same time lecturer on minor surgery in the University of

Pennsylvania. The type, paper, binding, &c., are up to the usual high standard of American excellence.

The Hygienic Prevention of Consumption. By J. EDWARD SQUIRE, M.D. Pp. xii., 194. London: CHARLES GRIFFIN AND COMPANY. 1893.—Dr. Squire has very wisely recognised the fact that the prevention of consumption is in part a question of public, and in part also a question of individual, hygiene. The general principles of preventive hygiene from infancy and childhood to adult life are dealt with in chapters which contain much careful and well-considered advice: school life, exercise, clothing and diet, all receive adequate notice, and the chapter on prevention of consumption in the family when one member of the household is consumptive, strikes us as of especial value. We think that the author's wish that the book may be acceptable to his professional brethren, as well as to large numbers of others interested, is likely to be realised.

Aids to Otology. (Second edition of *Epitome of Ear Diseases.*) By W. R. H. STEWART. Pp. 110. London: BAILLIERE, TINDALL, AND COX. [1893.]—We are warned in the preface that "this book is in no way intended to take the place of the larger works on ear-disease," but we scarcely think such a warning necessary; for it must be obvious to the most cursory reader that such a book as this could hardly convey any real information, much less take the place of a scientific work. We presume the intention of the author has been to supply a short and easy book of reference which should be useful to anyone who had not already acquired a knowledge of ear diseases, but we fear that in his anxiety to be brief he has spoilt any usefulness which the book might have possessed. For example, under the head of Othæmatoma we find, "*treatment*, evaporating lotions; vesication; puncture of tumour and aspiration; evacuating contents and applying pressure; ice, iodine; lead lotion; methodical massage." How is the unfortunate surgeon, seeking here to find the best treatment to pursue, to get any help from such a jumble as this? There is a total absence of literary style, and such sentences as the following abound: (p. 57) "The hearing power is the last symptom to get well;" while among the numerous errors, we notice (p. 10, line 10) auricular temporal for auriculo-temporal, (p. 13, line 22) cruræ for crura, and (p. 52, line 8) inflammation of middle ear for inflammation of drum membrane.

Myxœdema, and the Effects of Climate on the Disease. By A. MARIUS WILSON, M.D. Pp. 36. London: THE SCIENTIFIC PRESS, LIMITED. 1894.—We entirely fail to see the *raison d'être* of booklets of this sort. This one consists of 36 small pages in the largest of type on the thickest of paper. It adds nothing fresh to our knowledge of myxœdema, and does not even give a good account of what is already known about it: a better one will be found in any of the ordinary text-books.

A Practical Treatise on Diphtheria and its Successful Treatment. By BROWNLOW R. MARTIN, M.B. Pp. 32.—London: BAILLIERE, TINDALL AND COX. 1894.—A treatise on diphtheria in 32 pages of large print, the book also containing 42 pages of advertisements in small type! The author tries to disarm criticism by the humility of his preface; we will therefore content ourselves with saying that he believes that sulphite of magnesium locally applied to the fauces will abort or cut short diphtheria, and that, in our opinion, he brings forward no sufficient proof of his thesis.

Diseases of the Skin. By MALCOLM MORRIS. Pp. xii., 556. CASSELL AND COMPANY, LIMITED. 1894.—We have much pleasure in reviewing this work, because we believe the author is actuated by high motives, and is desirous of extending the knowledge of these intricate diseases by careful observation and sound investigation. Great advances have been made of late years in dermatology, and the work is well up to date. The coloured plates and drawings are very well done, and are a valuable addition. The former are well chosen, and they present very good contrasts of diseases which may easily be confounded. In Plate IV. the ear eczemas and lupus erythematosus of the same organ are beautifully compared; but we have a feeling that the lupus case will become one of vulgaris, even if there has not been already ulceration and scarring. The chapters on "Bacteriology" and "Classification" are well and clearly written, as is also the one on "Principles of Diagnosis;" but in making the distinction between varicella and variola (a discrimination very important in these days, when there are so many qualified men who, thanks to vaccination, have rarely or never seen a case of small-pox), we notice a very important omission; viz., that in chicken-pox, however severe the case may be—and therefore the more liable to be confounded with small-pox,—careful examination will always reveal the rash in, at least, the three stages of clear vesicle, a pustule, and a drying-up scab simultaneously, and often in close contiguity. This never happens in small-pox. The correct diagnosis is most important, because a mild attack of variola may be the source of infection in a very severe case, whilst chicken-pox can only produce chicken-pox. The description and treatment of eczema occupies a very important portion of the work. Mr. Morris has advocated for some time the use of tartar emetic in the treatment of some of these troublesome cases, and we can endorse the plan; but we are told there is very little new under the sun, and we find in an edition of Pareira for 1849, the bisulphate and peroxide of antimony spoken of rather highly as skin remedies. Now tartar emetic depends chiefly for its activity upon the large amount of the peroxide of antimony, which it contains. We are glad to find "acne" placed amongst the "Local Inoculable Diseases," as we have been impressed for some time with the view that acne depends upon a "germ,"

probably a micro-organism, and the most successful treatment embodies this idea. In speaking of Psoriasis (p. 271), the author states there are *no crusts;* Crocker defines it as "scaly crusts on a red base," and we think this definition as generally correct—short and pithy. In the chapter on Tinea, Sabouraud's views are clearly stated; but we have had several cases of T. tonsurans in members of the same family, and having, apparently, a common origin, and yet the results of similar treatment have been very varying; but no scalps are physiologically the same, and the difference may be accounted for by this rather than another species of fungus. There are many other points we should like to notice, but space forbids. We can commend the work most thoroughly to practitioners and students. It is well got up, and is exceedingly moderate in price.

A Guide to the Public Medical Services. By ALEXANDER FAULKNER, Surgeon-Major Indian Medical Service. London: H. K. LEWIS. 1893.—This pamphlet is what it professes to be —a work of reference. It will be found a useful guide for any aspirant who desires to join any of the following Public Medical Services: The Royal Navy, Medical Department of the Army, West Coast of Africa Medical Service, Colonial Medical Service, the Home Civil Medical Service, such as The General Post Office, Local Government Board, Factory Department, Dispensary, Workhouse and other Government Medical Appointments in Ireland. The information contained in the work may be thoroughly depended on to give accurate information, at all events up to November, 1893, as it contains little but exact copies of the official regulations published from the headquarters of the various services above mentioned. Everything that a candidate for one of these appointments requires to know will be found in the pages of Surgeon-Major Faulkner's little work.

A Practical Handbook of Midwifery. By FRANCIS W. NICOL HAULTAIN, M.D. Pp. 248. London: THE SCIENTIFIC PRESS LIMITED. 1894.—This book fulfils the object of its author in that it places before the student and practitioner the chief points in the study of obstetrics; but it certainly would be too concentrated for anyone who has not either heard the author's lectures or read some more detailed account of the subject. The plan of the work is good for reference, and the book itself contains much valuable information. The chapter on the "Signs of Pregnancy" is very well written, and that on "The Pathology of Pregnancy" is very comprehensive, but we cannot accept all the author's statements in reference to the effects of pregnancy on some morbid conditions. The excellent way in which Dr. Haultain deals with the diseases due to pregnancy gives a distinct stamp to the book. He states that in retroflexion of the gravid uterus the bladder trouble comes on after the fourth

month; our experience is that in such cases it is most frequently at the end of the third, that there is difficulty in micturition, and often retention of urine. Dr. Haultain has many practical hints on the management of labour, and we agree with him in his preference for the axis traction forceps of Milne Murray. The other portions of the book are full of information, and would well repay anyone reading them while waiting at a midwifery case. The book is especially one to refresh one's memory from, rather than a student's book to teach him the subject.

We have received from Messrs. J.-B. Baillière et Fils a copy, dated May, 1894, of their "Bibliographie Méthodique des Maladies de l'Enfance." Upon request, addressed to them at 19 Rue Hautefeuille, Paris, the publishers will send this very useful catalogue to any one desirous of having it.

Commencing with the July issue, the *Archives of Pediatrics* (Bailey & Fairchild, New York) will be edited by Dr. Dillon Brown, Adjunct Professor of Pediatrics at the New York Clinic.

Notes on Preparations for the Sick.

Food for Infants and Invalids. Food Biscuits.—G. MELLIN, London. **Emulsion of Cod-Liver Oil and Hypophosphites.**—MELLIN'S EMULSION CO., LTD., London.—Mellin's food needs little description. Its chemical composition concurs with the results of experience in indicating that it is a perfect food for infants and persons of weak digestion. Every trace of starch has been converted into grape-sugar or dextrine; it contains 16 per cent. of nitrogenous matter, and only 6 per cent. of insoluble residue.

The **Biscuits** contain about 50 per cent. of the food; they appear to be very suitable for infants during the transitional stage, and for invalids.

The formula of the **Emulsion** is as follows:—

℞	Ol. Morrhuæ	ʒvi
	Gum. Arabic. ... ... }	
	Sacch. Alb. ... ... }	āā q.s.
	Aq. Cinnamomi	ad. ʒxii.
	Misce ut fiat Emuls. et adde:	
	Calcii Hypophosph. }	
	Sodii Hypophosph. }	āā gr. 48.

The adult dose is from one to two table-spoonfuls. It should prove a useful preparation, and deserves especial favour as its exact composition is stated.

Virol.—Liquor Carnis Co., London—.This is said to be "a highly concentrated 'complete food,' consisting of the proteids of beef and eggs, the fats of beef and eggs, the marrow of beef or essence of bone, the carbohydrate extract of malt,—and the salts of beef and eggs (including the lime-salts of the shell), in proportions carefully adjusted to diet-formulæ laid down by the most up-to-date physiologists." Such is the description of a preparation which is not unpalatable, reminding one of Christmas plum-pudding, and which many patients will take who decline cod-liver oil; but it can in no sense be looked upon as a substitute for oleum jecoris aselli in the treatment of phthisis.

Mist. Calc. Chlor. c Ferro. Mist. Calcis Chlorid. Ol. Morrhuæ Etheris. Lotio Picis Carbonis Co. Linimentum Pinus Aceticum. Lotio Capitis. Lin. Tannici Co. Chloralose — in cachets. — Arthur & Co., London.—We doubt not but that these are all excellent and useful preparations; but we should like to see the formula printed on the label before we venture to express any opinion upon them.

Wine of Cod-Liver Oil with Peptonate of Iron (Stearn's). **Cascara Aromatic** (Stearn's). **Dike's Pepsin.**—Thomas Christy & Co., London.—It has long been thought that the active principle of cod-liver oil was the oil itself, but recently the practice of giving certain solid extracts from the oil has come into vogue; and there is much clinical evidence in favour of the utility of such preparations as morrhuol, in which little or none of the oily matters are retained. Various physiological experiments tend to show that cod-liver oil is a reconstituent of the tissues through its richness in phosphates, phospho-glyceric acid, and organically combined phosphorus. Bromine and iodine also contribute; but it is presumed that the principal medicinal value of the oil may be due to such substances as butylamine, amylamine, morrhuine, and morrhuic acid. Presuming that cod-liver oil owes its value as a medicine to the active principles which may be separated from the oil itself, we have good grounds for encouraging the use of capsules containing these separated products, or of fluids which contain them in solution.

The **Wine of Cod-liver Oil** (Stearn) is an elegant fluid, containing 25 per cent. of the extractives from the oil, together with four grains of peptonate of iron to each fluid once. It is pleasant to the taste, does not cause any nausea or eructation; and it has been found to act like cod-liver oil in improving nutrition and increasing the weight. In the large class of patients who object to the crude oil, this wine is well worthy of trial.

Cascara Sagrada still maintains its position as one of the most agreeable and efficient laxatives at our disposal. Stearn's

aromatic production is a concentrated one, from which the bitter principle has been removed, and which may serve as an excellent vehicle for many other useful drugs. It has given excellent results.

The **Pepsin** has a digestive strength of one in 3000; it is free from odour and taste and is not hygroscopic. It makes a clear solution, which does not precipitate with acetic acid: it is, therefore, free from mucus. It may be dispensed in powder form or combined with other powders. Clearly a pepsine like this in scales, tasteless, odourless, dry, and easily soluble in water, has advantages over many other kinds in daily use.

Beef Jelly. Fluid Beef Jelly. Beef Meal. Beef-Cacao. Bromelin. Esencia de Coca. Fluid Ext. Cocillaña.—MOSQUERA-JULIA FOOD COMPANY, Detroit.—The dietary of cases of chronic malnutrition becomes daily a more and more important question; and hyper-alimentation in the treatment of such diseases as phthisis is becoming the rule. Meat and milk are the two articles of food which furnish the greatest amount of nutriment with the least expenditure of digestive energy. The latter is frequently declined, and the former cannot be taken excepting in some artificially prepared medicinal form. Of the many preparations of meat which have been devised for the invalid, the Mosquera foods, samples of which have been sent to us by Messrs. Parke, Davis & Co., are the newer candidates for professional favour. They have already given excellent results, and are found to be agreeable to the taste, easy of digestion, readily assimilable, and efficient in improving nutrition.

The **Beef Jelly** contains over 50 per cent. of albuminous matter; and the **Beef Meal** 77.25 per cent. Prof. Chittenden, of Yale College, estimates the nutritive value of the latter to be at least that of six times its weight of lean beef. It is a partially pre-digested powdered beef, containing 18.34 per cent. of peptone, but without the nauseous bitterness which characterises most preparations of peptone. The **Beef-Cacao** has cacao and sugar added, and the flavour of this meat is completely overcome by the more powerful flavour of the cacao. These powders might well take the place of the raw meat, and the meat juices, which are now so universally in demand where the digestive powers are weak and hyper-alimentation is needful. Such powders as these are destined to play an active part in the treatment of phthisis and other disorders of nutrition.

Bromelin is the name given to a proteolytic ferment derived from the juice of the pine-apple. It possesses in a high degree the properties of animal pepsine.

The **Esencia de Coca** is an agreeable liqueur, each fluid ounce of which represents 32 grains of the erythroxylon coca.

We have used the **Fluid Ext. Cocillaña** in several cases of acute and chronic bronchitis and in bronchitic asthma. It

seemed to be most beneficial in the earlier stages of acute inflammatory conditions of the larger bronchi before expectoration had become free, and in more chronic forms with deficient secretion. It appears to stimulate the mucous glands, and, in fact, to resemble ipecacuanha in its action, rendering the expectoration more copious and less tenacious; but the advantage of this drug over the better known expectorants was not very obvious. We have generally prescribed 20 to 25 minims every two hours till three doses have been taken, and then continued every four to six hours. These doses never gave rise to any nausea, and herein lies its sole recommendation as a substitute for ipecacuanha and apomorphine.

Oil of Eucalyptus. "Lanoline," Pine Tar Soap.—BURROUGHS, WELLCOME & Co., London.—The **Oil** is a strong preparation obtained by distillation from eucalyptus leaves. It is a valuable antiseptic, which may be used for inhalation better than almost any other substance, on account of its pleasant odour and unirritating properties.

The **Soap** is an excellent antiseptic preparation, and the presence of lanoline makes it penetrative, especially when used for the hair. The odour left after its use is less disagreeable than that of carbolic acid, but it still leaves something to be desired.

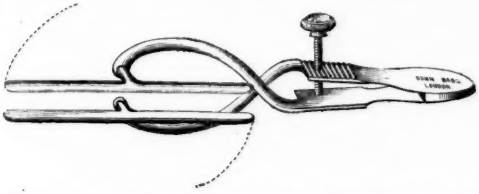
Phenosalyl.—FARBWERKE VORM. Meister LUCIUS & BRUENING, Hoechst-on-the-Maine.—This preparation—another new antiseptic!—invented by Dr. J. de Christmas, of Paris, has been forwarded to us by Messrs. Burroughs and Wellcome, who are the agents for it in the United Kingdom.

Investigations are constantly being made with a view of finding a perfect antiseptic. Corrosive sublimate and phenol have certain objectionable qualities which it is sought to avoid without loss of efficiency.

Phenosalyl is a mixture of carbolic, salicylic, and benzoic acids, melted together and dissolved in lactic acid. Its odour is certainly less objectionable and less persistent than that of carbolic acid; while one or two trials which we have been able to give it proved it to be a powerful antiseptic in solutions of the strength of only 1 per cent.

Dr. James Swain's Clamp for Enterectomy.—DOWN BROS., London.—The chief advantage of this instrument consists in the uniform pressure which exists along the whole length of the blades, whether they are parallel or not. It therefore compensates for any variation in thickness at the mesenteric and free borders of the intestine, and obviates that excessive pressure at the proximal end, and the feeble pressure at the distal end,

which obtains in many clamps. This equality of pressure is secured by the swinging of the blades—which are supported at their *centre* by short secondary shanks—on pivots at the end of each main shank. The spring handle of the clamp is after the model of Dieffenbach's forceps, with a screw for increasing the



power if necessary. The shanks are long and curved outwards, so as to allow the bowel, when held by the blades, to pass through them without touching. Before use each blade is covered with a piece of rubber drainage-tube. It is made in two sizes, with blades three inches and two inches in length respectively.

Automatic Grip.—B. HUNTER, Bristol.—This is an ingenious provision for holding an abdominal binder in position after a confinement or an abdominal section. It allows a perfectly controlled support or compression without the use of pins or hooks. We have used it with much success in a case of umbilical hernia, but have been disappointed with it in a case of fractured ribs, for which it is also recommended. Its chief use will doubtless be immediately after a confinement.

Agathin. Diuretin.—BURROUGHS, WELLCOME & Co., London. —The first of these preparations, the scientific name of which is salicyl-*a*-methyl-phenyl-hydrazone, is said to have analgesic properties in articular rheumatism, neuralgia, and sciatica. It is best given in cachet, in doses of four to eight grains three times daily. We have tried it in a case of severe and advanced locomotor ataxia, but it entirely failed to give relief.

Many observations of numerous observers lead to a uniform conclusion that diuretin is of great value in dropsies of both renal and cardiac origin. Dr. Silvestri reports as follows:—"The salicylate of soda and theobromine in the early stages of asystole has a very limited action, undoubtedly inferior to digitalis, strophanthus, convallaria, etc. It is in the last stages of asystole (œdema and anasarca) that its beneficial effects are more often shown, when the heart-muscle is degenerated. It then acts, as we have seen, by influencing the kidney and exciting its function. Of all the forms of cardiac disease, it acts most energetically in mitral lesions, less in aortic disease, and less still when to one or other is joined diffuse atheroma of

the peripheral arterial system. Of the forms of renal affection, it acts most satisfactorily in acute nephritis—somewhat less so in chronic nephritis. The diuretic effects of diuretin become manifest after 12, 14, or 24 hours. The best mode of administration is a solution in warm water. One prescription was as follows for a daily dose:

Diuretin	4—6 grammes
Warm Water	130 grammes
Syrup of Peppermint	20 grammes

or it may be given in tabloids of five grains every two hours. We conclude by saying that salicylate of soda and theobromine is an excellent diuretic, perhaps the best known to therapeutics, and for this cause it has justly merited the name 'Diuretin.'"

Ophthalmic Tabloids and Holder. Chromatic Dial. BURROUGHS & WELLCOME, London.—These **Tabloids** are minute discs, prepared with a sterile, innocuous, non-irritating basis; they are more soluble than gelatine discs, and are easily applied to the eyeball by means of the holder, which is made like a syringe, and consists of a small india-rubber ball with a celluloid nozzle, the end of which is just large enough to hold a tabloid. Nine tubes of different kinds of tabloids, with a holder, and a small pestle and mortar are included in a neat case at the moderate price of 7s. 6d.

The **Chromatic Dial** is a convenient test for colour blindness. Accompanying it are directions by which the test is easily applied, and in many cases it would prove of service as a preliminary investigation, which, however to be made complete, should be verified by the use of Holmgren's wools.

Cliftonia. H. W. CARTER AND Co., Bristol.—This is an aerated distilled water, and as such is all that can be desired. For purposes associated with conditions where flushing of the tissues and the washing away of excreta are needful, more especially when the excreting organs are hampered by disease, the need for distilled water as a beverage is obvious, and its aeration gives it agreeable qualities which are scarcely surpassed by any of the natural waters such as Apollinaris. The sterilisation of the water by distillation gives a guarantee of freedom from deleterious impurities of all kinds.

Golden Hop Stout. J. AND T. USHER, Bristol.—This semi-medicinal beverage has an appearance resembling that of ordinary stout, but no one could mistake the one for the other. Its flavour is not unpleasant, and it has no exhilarating qualities; but as a daily drink we should soon be weary of it.

Bristol Medico-Chirurgical Society.

January 10th, 1894.

Mr. J. GREIG SMITH, President, in the Chair.

The following skin cases were exhibited: (1) by Dr. A. J. HARRISON, a man with non-specific psoriasis attacking unusual parts; (2) by Dr. BERTRAM ROGERS, a boy with extensive patchy psoriasis; (3) by Mr. W. DUNCAN, a woman with psoriasis which had been much improved by thyroid extract; (4) by Dr. C. ELLIOTT, a boy, aged 11, with complete alopecia.

The PRESIDENT showed specimens of ovarian cystic tumours with hemorrhages into walls of cysts and separation of pedunculated growths, etc.

Dr. J. E. SHAW gave the history of a girl, aged 19, who had suffered for two months from painful dyspepsia before her admission to the Infirmary, where she developed signs of general peritonitis. A diagnosis of perforating gastric ulcer was made, and Mr. PAUL BUSH performed a cœliotomy. The viscera appeared healthy, but a small quantity of purulent serum was found. The peritoneal cavity was irrigated. She did well for a time, but began to expectorate and showed signs of consolidation of left lower lobe of lung, and albumen appeared in the urine. After death, an ulcer was found in upper and anterior suface of the stomach, with a small perforation leading into a sub-diaphragmatic abscess-cavity which communicated with a ragged gangrenous cavity in the base of the left lung. The parotid and sub-maxillary glands were suppurating.

Dr. J. MICHELL CLARKE and Mr. C. A. MORTON described the case of a female child who suffered from pains in abdomen after food, and from constipation. She became collapsed, and a dull swelling was found over left iliac fossa. This was incised, and a cavity was found surrounded by matted-together intestines. There was a fæcal discharge into this cavity, which was irrigated and drained. The child recovered. This was considered to be a case of perforation of the colon by a small foreign body.

February 14th, 1894.

Mr. J. GREIG SMITH, President, in the Chair.

Mr. W. M. BARCLAY showed a girl with double congenital dislocation of the hip.

Dr. BERTRAM ROGERS showed a boy with general thinning of the hair following a patch of complete alopecia which had been quite cured. Chrysophanic acid seemed to increase the growth of the hair.

Dr. J. MICHELL CLARKE exhibited a specimen of perforated gastric ulcer on the border of a much larger ulcer which adhered to the pancreas.

Dr. F. H. EDGEWORTH described the case of a child, aged four years, who had suffered from recurrent attacks of jaundice, and for a year before death from an abdominal tumour in the region of the gall-bladder. Cholecystotomy was performed by Mr. Ewens, and twenty-nine ounces of greenish fluid removed. The patient died a week

afterwards from cardiac failure, and at the *post mortem* it was found that the sac of the tumour was a greatly-distended common bile-duct. The liver was cirrhosed.

Dr. BERTRAM ROGERS showed a round-celled sarcoma removed by Mr. Ewens from the broad ligament of a child two years old.

Dr. THEODORE FISHER read a paper on adherent pericardium in children. (See page 93).

Mr. C. A. MORTON exhibited a patient, aged 75, with a pulsating tumour on the sole of the foot, probably an aneurismal varix. Seven years ago the heel became swollen and black, and was incised. This was followed by ulceration, which got well, but recurred a year ago. The posterior tibial was ligatured, and a pulsating vein was felt in its neighbourhood. Remission of pain followed the operation. A loud bruit is now audible over the dorsalis pedis, and there is slight pulsation in the heel.

March 14th, 1894.

Mr. J. GREIG SMITH, President, in the Chair.

Mr. H. F. MOLE exhibited three specimens of gastric ulcer. (1) A malignant ulcer of the pylorus, with a perforation posteriorly, causing an abscess in sac of lesser omentum. (2) Ulcer of pylorus with aneurism of pancreatico-duodenal artery, which had ruptured, causing death from hemorrhage. (3) Perforating funnel-shaped ulcer in anterior wall; also older ones posteriorly, adherent to pancreas.

The PRESIDENT showed—(1) The stomach-wound and the incision in the parietes, both perfectly healed, made in the second of the above cases. (2) The wound made in a case of gastrostomy, with firm adhesions between stomach and abdominal wall.

Dr. F. H. EDGEWORTH read notes on a case of syringomyelia. (See page 100.)

Dr. WALTER SWAYNE described—(1) A case of labour which was obstructed by atresia of the cervical canal. This was dilated, and labour terminated normally. These cases were probably due to organisation of the clot formed in the canal during pregnancy. (2) The case of a child who died when two months of age from rupture of an enlarged spleen. The cause of the injury was probably over-lying by the mother.

Dr. J. MICHELL CLARKE showed specimens from a case of lymph-adenoma with deposits in the viscera and lymphatic glands. The patient was a girl aged 25, and the disease lasted three years. Micro-photographs of sections were shown with the lantern.

Mr. W. M. BARCLAY described a case of intussusception in which cœliotomy was performed. The intussusception was easily reduced, but a longitudinal rent was found in the gut. This was sutured, but the patient sank. He also showed a concretion three-quarters of an inch long, composed of inspissated fæcal matter, bile pigments, etc., which had caused perforating appendicitis.

April 11th, 1894.

Mr. J. GREIG SMITH, President, in the Chair.

Dr. A. E. AUST LAWRENCE described a case of amenorrhœa in which there was marked pigmentation of the skin. (See page 107.)

Mr. C. A. MORTON described a case of cervical fistula in a man aged 19. The fistula had been discharging and temporarily closing since the age of three. A cystic growth the size of a walnut, containing jelly-like fluid, was dissected out, and the patient recovered completely. These fistulæ originated in the canal leading from the foramen cæcum to the back of the hyoid bone.

The PRESIDENT showed a series of translucencies illustrating the growth of tumours. Thin sections, rendered semi-transparent by soaking in glycerine and boric acid, were mounted between plates of glass. Teratomata, adenomata, scirrhus of the breast, showing mode of extension of skin, glands, &c., various sarcomata, myomata, &c., were shown.

Mr. G. MUNRO SMITH exhibited a series of lantern slides photographed by Dr. Imlay and Mr. J. Taylor from specimens of myoma of prostate, angioma of liver, epithelioma, scirrhus, &c.

May 9th, 1894.

Dr. E. MARKHAM SKERRITT in the Chair.

Dr. R. SHINGLETON SMITH showed a specimen of splenic abscess from a girl who had suffered from vague abdominal symptoms and hectic temperature for more than a month before death, which resulted from wide-spread peritonitis. Cœliotomy was performed and the peritoneal cavity irrigated, but without any good results. There was evidence of old appendicitis and of pyo-phlebitis of the liver. The condition was probably pyæmic.

Mr. C. A. MORTON described the case of an elderly woman who dislocated her spine between the sixth and seventh cervical vertebræ, with crushing of the cord extending as high as the fifth cervical. There was paralysis of lower limbs and intercostals and of the muscles of upper limbs, except supra- and infra-spinatus, deltoids, biceps, pronators, supinators, and subscapularis. The area of anæsthesia, as well as the paralysis, pointed to a lesion of the cord at the sixth nerve-roots, and this diagnosis was verified *post mortem*. He also showed a boy, aged 16, whose olecranon had been fractured by muscular action three weeks before he came to the Hospital. There was considerable movement. Probably it was a case of separation of epiphysis.

Dr. ARTHUR B. PROWSE read notes on a case of fatal paludism in a young man who had never resided in a malarial district, but had travelled to the East Indies and West Coast of Africa. Quinine stopped the intermittent attacks, and the patient improved; but his temperature again rose to 103°, and remained high for a few days before his death, which was sudden. The *post mortem* threw no light on the fatal termination. Specimens of the spleen, &c., were shown, with the pigmented masses characteristic of the disease. Dr. MICHELL CLARKE exhibited some of the malarial plasmodes in the blood of another patient.

Dr. P. WATSON WILLIAMS exhibited some lantern slides of photographs by Dr. Imlay, of the Eberth-Gaffky bacillus from Agar-Agar cultures taken from ulcers in the larynx of a rapidly fatal case of typhoid fever. The cultures were made by Mr. F. W. Stoddart. It was thought that the patient contracted the disease from a man in the same ward with a typhoid ulcer of the larynx; it was probably transmitted by the breath and expectoration.

G. MUNRO SMITH, *Hon. Sec.*

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the list in March:

May 31st, 1894.

F. H. Edgeworth, M.B. (1) ... ... 1 volume.
Arthur B. Prowse, M.D. (2) .. .. 2 volumes.
J. E. Shaw, M.B. (3) ... ... 1 volume.
E. J. Sheppard (4) ... ... 2 volumes.
R. Shingleton Smith M.D. (5) ... ... 1 volume.
W. Roger Williams (6) ... ... 9 volumes.

TWELFTH LIST OF BOOKS.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Ball, C. B. ... ... *The Rectum and Anus* ... ... 2nd Ed. 1894
Baynton, T. ... *New Method of Treating Old Ulcers of the Legs.* (4) 2nd Ed. 1799
Beard and A. D. Rockwell, G. M. *Medical and Surgical Electricity.* 8th Ed. 1891
Bigelow, H. R. ... *An International System of Electro-Therapeutics* 1894
Blackwell, Elizabeth *The Human Element in Sex* 1894
Bosworth, F. H... *Diseases of the Nose and Throat.* 2 vols. 1889-92
Bouchard, Ch. ... *Lectures on Auto-Intoxication in Disease.* (Tr. by T. Oliver) 1894
Browning, W. B.. *Modern Homeopathy*... ... ... [2nd Ed.] 1894
Butlin, H. T. ... *Sarcoma and Carcinoma* 1882
,, ... *Malignant Disease of the Larynx* 1883
,, ... *On the Operative Surgery of Malignant Disease* 1887
Carpenter, G. ... *Congenital Affections of the Heart* 1894
Children, An American Text-Book of the Diseases of. (Ed. by L. Starr and T. S. Westcott) 1894
Cullen, W. ... ... *Nosology.* [Tr. by C. S.] ... ... (4) 1810
Dukes, C. ... ... *On the Features which distinguish Epidemic Roseola from Measles and from Scarlet Fever* 1894
Firebaugh, Ellen M. *The Physician's Wife* 1894
Fresenius, C. R... *Qualitative Chemical Analysis.* (Tr. by A. Vacher). (2) 8th Ed. 1872
,, *Quantitative Chemical Analysis.* (Tr. by A. Vacher). (2) 7th Ed. Vol I. 1876
Garrigues, H. J... *Diseases of Women* 1894
German Authors, Clinical Lectures on Medicine and Surgery by. 3rd Series 1894

Gull, Sir W. W. .. *A Collection of Published Writings—Medical Papers.* (Ed. by T. D. Acland) 1894
Gynecology, An American Text-Book of. (Ed. by J. M. Baldy) 1894
Hall, F. de H. ... *Diseases of the Nose and Throat* 1894
Heath, C. ... ... *Injuries and Diseases of the Jaws.* 4th Ed. (Ed. by H. P. Dean)... 1894
Herman, G. E. ... *Difficult Labour* 1894
Horsley, V. ... *The Structure and Functions of the Brain and Spinal Cord* ... ... (1) 1892
Jeaffreson, C. S.... *Nursing in Eye Diseases* ... ... (5) 1894
Klein, E. ... ... *The Anatomy of the Lymphatic System.* 2 vols.... 1873-75
Lexicon of Medicine and the Allied Sciences. (New Syd. Soc.) P—PIN ... 1893
Martindale, W. ... *Analyses of Twelve Thousand Prescriptions* 1894
Medicine, An American Text-Book of the Theory and Practice of. (Ed. by W. Pepper) ... ... Vol. II. 1894
Moure, E. J. ... *De l'Empyème du Sinus sphénoïdal* 1894
,, ... *De l'Extraction des Osselets dans l'Otorrhée* 1894
,, **et J. Sabrazès.** *Un Cas d'Angiokératome de la corde vocale droite* 1894
Parkinson, C. H. W. *President's Address—Bournemouth Medical Society.* Session 1893-4
Payne, J. F. ... *On Seborrhœa and its Consequences*... 1894
Praagh, W. Van .. *Defective Articulation resulting from Cleft Palate.* 2nd Ed. 1894
Rentoul, R. R. ... *The Proposed Formation of an Inferior Order of Midwifery Practitioners* ... ...[1894]
Rockwell and G. M. Beard, A. D. *Medical and Surgical Electricity.* 8th Ed. 1891
Sabrazès et E. J. Moure, J. *Un Cas d'Angiokératome de la corde vocale droite* 1894
Saundby, R. ... *The Common Forms of Dyspepsia in Women*... 1894
Sayre, L. E. ... *Essentials of Practice of Pharmacy* ... ... 2nd Ed. 1894
Shaw, J. C. ... *Essentials of Nervous Diseases and Insanity* ... 2nd Ed. 1894
Spender, J. K. ... *Osteo-Arthritis* ... ... (3) 1889
Stevens, A. A. ... *A Manual of Therapeutics* 1894
Treves, F. ... ... *The Surgical Treatment of Typhlitis* 1890
Will, J. C. O. ... *Lectures on Genito-Urinary Diseases* 1894

TRANSACTIONS, REPORTS, JOURNALS, &c.

Alienist and Neurologist, The... ... ... Vol. XIV. 1893
Archives de Neurologie ... ...Tome XXVI. 1893
Australasian Medical Gazette, The ... ... Vol. XII. 1893
Bristol Medico-Chirurgical Journal, The ... ...Vol. XI. 1893
Bristol Port Sanitary District—Annual Report of Medical Officers of Health for 1893 1893
British Journal of Dermatology, The ... ... Vol V. 1893
Bulletin de l'Académie de Médecine ... ... Tomes XXIX. & XXX. 1893
Bulletin de l'Académie Royale de Médecine de Belgique. Tome VII. 1893
Cincinnati Lancet-Clinic, The ... ... Vol. LXX. 1893
Gazette de Gynécologie ... ... Tome VIII. 1893
Hospital Annual, Burdett's 1894

Hospitals—
Johns Hopkins Hospital Reports, The ... ... Vol. IV., No. 1 1894
Middlesex Hospital—Registrars' Reports for 1880, 1882-89 (6)
Saint Bartholomew's Hospital Reports ... ... Vol. XXIX. 1893
Index Medicus ... ... Vol. XV. 1893
International Medical Magazine ... ... Vol. II. 1894
Johns Hopkins Hospital Bulletin, The ... ... Vols. III.-IV. 1892-93
Journal of Nervous and Mental Disease, The ... ... Vol. XVIII. 1893
Journal of Pathology and Bacteriology, The ... ... Vol. I. 1893
Local Government Board—Further Report and Papers on Epidemic Influenza, 1889-92 1893
Medical and Surgical Reporter, The ... . Vol. LXIX. 1893
Medical Annual, The 1894
Medical Chronicle, The ... ... Vol. XIX. 1894
Medical Review ... ... Vol. XXVIII. 1893
Medicinische Bibliographie 1893
Medico-Chirurgical Transactions ... ... Vols. LXXIV.—LXXVI. 1891-93
New Zealand Medical Journal, The ... ... Vol. VI. 1893
Obstetrical Transactions. Vol. XIII., 1872; Vols. XXVII.—XXXIII., 1886-92
Progrès Médical, Le ... ... Tome XVIII. 1893
Registrar-General of Births, Deaths, and Marriages in England, Annual Reports of... ... ... 1843-45, 1853, 1855-57, 1878

The William F. Jenks Memorial Prize.

The Third Triennial Prize, of Five Hundred Dollars, under the Deed of Trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "Infant Mortality During Labour, and its Prevention." The prize is open for competition to the whole world; but the essay must be the production of a single person. The essay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, should be sent to the College of Physicians of Philadelphia, Pennsylvania, U.S.A., before January 1st, 1895, addressed to Horace Y. Evans, M.D., Chairman of the William F. Jenks Prize Committee. Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. Application for any further information should be made to James V. Ingham, the Secretary of the Trustees.

The International Congress of Hygiene and Demography.

A British Committee, of which Sir Douglas Galton is the Chairman, and Professor W. H. Corfield is the Treasurer, has been formed to further the interests in this country of the Eighth International Congress of Hygiene and Demography, which is to be held in Budapest, from the 1st to the 8th of September this year. Any information may be obtained about the Congress from the Hon. Secretary, Dr. Paul F. Moline, 42 Walton Street, London, S.W.

SCRAPS

PICKED UP BY THE ASSISTANT-EDITOR.

Clinical Records (7).—According to a Melbourne correspondent of the *British Medical Journal* the very depressed state of their finances is responsible for the following: A lady who was suffering from an ailment peculiar to her sex called on a specialist for advice, and was asked by him why he had the honour of being selected by her, to which she replied that "just then she could not afford to consult a guinea-cologist, but that she had heard that he was only half-a-guinea-cologist!"

English Abroad.—In its account of the recent International Medical Congress the *Medical Record* says: The following is the report of Virchow's address at the inaugural session, as given in the *Official Journal* of the following day:

"The Professor Virchow, President of the last Congress, explaine the reasons that have decided the Physicians that in 1890 were reunited at Berlin, to choice Rom, as six of the XIth International Congress.

"The Orator said, that in this manner they have intended to make homage to the ancients tradictions. He exprime the desire that the Congress, can contribute to elevatad the morals aspirations, the ties of the friendsip of all countries, so that the fraternal place that must approch all the civilited Nations."

After the conclusion of this address, the *Journal* continues: "Mrs. The Delegates whom names are the following, have taken the word in order, to give the welcome to their Compatriots."

The "Fin de Siècle" Surgeon.—I copy from the *Medical News* of May 26th three out of eleven verses signed "C. Rockwell":

If there 's cause to suspect any ill effect produced by unseemly meals,
The modern M.D. doesn't wait, not he, to ask how his patient feels,
Nor to hear him state what he thinks he ate—but without any useless fuss
He lets down a string with a bucket-like thing, and samples his contents—thus

Into dark recesses which baffle guesses he pokes his 'scope with a grin,
Then turns on the light, and the luckless wight "all glorious is within."
When intestine strife makes a burden of life, and obstructionist lumps prevail,
Though the case be grave, to the surgeon brave there is no such word as fail.

With a wide incision and free division he charges upon the foe,
Takes what he thinks best, and puts back the rest in the place where it ought to go.
In a half-way measure he takes no pleasure, so fits out his man beside
With the latest in rings, nickel buttons, and springs, and sutures him up with pride.

Medical Philology (X.).—In the *Promptorium* is to be found "BONSCHAWE, sekeness. *Tessedo, sciasis.*" Pynson's printed edition (1499) gives it as "bonshawe." Mr. Way's note is:

The baneschawe, *oscedo.* CATH. ANGL. "*Oscedo, quedam infirmitas quo ora infantium exulcerantur, i.e. oscitatio, oris apertio,* a boneshawe." ORT. "*De infirmitatibus.* Baneschaw, *cratica, i. passus.*" Roy. MS. 17 C. XVII., f. 40. John Arderne, who was surgeon to Edward III., says in his Chirurgica, "*ad guttam in osse, que dicitur* bonschawe, *multum valet oleum de vitellis ovorum, si inde ungatur.*" Sloan. MS. 56, f. 18 b. In Sloan. MS. 100, f. 7, is given the recipe for "a good medicyn for boonschawe. Take bawme and fevirfoie, the oon deel bawme, and the thridde part fevirfoie, and staumpe hem, and tempere hem with stale ale, and lete the sike drinke therof." In Devonshire the sciatica is termed bone-shave, and the same word signifies in Somerset an horny excrescence on the heel of an horse. ? A. S. sceorfa, *scabies.*

This word has puzzled the etymologists. The *New English Dictionary*, while saying that "the meaning of *shaw* does not appear," seems to take for granted that the first syllable of the word refers to "bone"; but this is more than doubtful if we note the equivalents from the *Catholicon* and the *Ortus*. In Lewis and Short's *Latin Dictionary* two references are given where *oscedo* signifies "a sore in the mouth of children, aphthæ."

It is only in the unsatisfactory state of the etymology of this word and with the utmost diffidence that I suggest that, as the word in its form of "baneschawe" originally described an aphthous condition of the mouth, its first syllable is "bane" in the sense of destruction or poison, and that the second syllable is (1) allied to "scall," which is defined in Todd's Johnson as

"a discontinuity of skin or flesh by a gnawing malady." Scaldhead is a term in common use at the present day. We know from the *Catholicon* that the word "scalde" in another sense was also spelled "scawde." Or (2) that it is a modification of "schavynge" in the sense of *abrasio* as given in the *Promptorium*. In either case, the word would then signify a specially troublesome ulcer. Possibly its corruption into "bone shave" followed from the confusion arising from "os" signifying both mouth and bone.

Fevirfoie mentioned in the prescription quoted by Mr. Way from the Sloan. MS. was the herb known also as feverfew, which was supposed to have what some still call "febrifuge" qualities.

Chaucer's "Doctour of Phisyk."—In the March number in an extract concerning the Black Death occurred some reference to Chaucer's celebrated "Doctour of Phisyk." Readers will, I have no doubt, be glad to have, accompanied by some notes which I have gleaned from various sources, the full description of that practitioner, especially as I can give a picture of him, taken from the coloured drawing in the Ellesmere MS., which is the best text of the *Canterbury Tales*. Dr. Furnivall kindly enabled me to obtain this from Messrs. Clay and Sons, who very courteously sent me in addition much that is of interest in connection with Chaucer. The doctor is thus introduced in the Prologue (ll. 411–44):

With us there was a Doctour of Phisyk,
In all this world ne was ther noon him lyk
To speke of phisik and of surgerye;
For he was grounded in astronomye.
He kepte his pacient a ful greet del
In houres, by his magik naturel.
Wel coude be fortunen the ascendent
Of his images for his pacient.
He knew the cause of everich maladye,
Were it of hoot or cold, or moiste or drye,
And where engendred, and of what humour;
He was a verrey parfit practisour.
The cause y-knowe, and of his harm the rote,
Anon he yaf the seke man his bote.
Ful redy hadde he his apothecaries,
To send him drogges, and his letuaries,
For ech of hem made other for to winne;
Hir frendschipe was nat newe to biginne.
Wel knew he the olde Esculapius,
And Deiscorides, and eek Rufus:
Old Ypocras, Haly, and Galien;
Serapion, Razis, and Avicen;
Averrois, Damascien, and Constantyn;
Bernard, and Gatesden, and Gilbertyn.
Of his diete mesurable was he,
For it was of no superfluitee,
But of greet norissing and digestible.
His studie was but litel on the Bible,
In sangwin and in pers he clad was al
Lyned with taffata and with sendal;
And yet he was but esy of dispence;
He kepte that he wan in pestilence.
For gold in phisik is a cordial,
Therfor he lovede gold in special.

From Chaucer's description of the medical pilgrim much may be learned, not only of the individual characteristics of this doctor, but of the contemporary state of medicine and its literature. Many of us might envy this practitioner's power of diagnosis and his etiological skill. Such a combination would go far to make "a verrey parfit practisour," as the advertising Australian doctor believed it did in his case, when he announced that his diagnosis was not only intuitive but instantaneous. The simplicity of the humoral pathology enabled the "Doctour of Phisyk" to define the cause of every malady with great precision.

The steed upon which the doctor is seated is not one that would satisfy the requirements of the dashing doctor of to-day. Neither of the artists of the Ellesmere MS. could draw a horse, for all the animals ridden by the pilgrims are of the same wooden description, as may be seen from the reproductions in the Chaucer Society edition of the Tales and the illustrated

edition of Green's *Short History of the English People* (vol. i. pp. 420–9). The drawing in Urry's (1721) edition of Chaucer provides the doctor with a noble-looking animal, but the picture altogether lacks the interest and the character of that of the Ellesmere MS.

But in the matter of dress the doctor at the end of the nineteenth century, with his black morning or frock coat and dull ungraceful trousers, although he may have gained in comfort, is, so far as appearance goes, at a manifest disadvantage, not only with his fourteenth century ancestor, but with the doctor of later times, as may be seen from Allan Ramsay's portrait of Mead now in the National Portrait Gallery, or that of Astley Cooper by Sir Thomas Lawrence. Chaucer's doctor was arrayed "in cloth of a blood-red colour and of a blueish-grey." Todd says (*Illustrations of the Lives and Writings of Gower and Chaucer*, 1810, p. 254), "in the Manuscript his surcoat is of bright purple and his hood . . . of blue, deeply furred with white," and refers to a passage in *Piers the Plowman* (Passus vi.), written shortly before the *Canterbury Tales*, alluding to the benefits arising from an abstemious diet, and which contains a mention of the dress of a physician, and is also a good instance of the frequent satire directed against doctors, who are said to shorten rather than lengthen their patients' lives.

And if thow diete thee thus,
I dar legge myne eris
That Phisik shal hise furred hodes
For his fode selle,
And his cloke of Calabre,
With alle the knappes of golde,
And be fayne, by my feith!

His phisik to lete,
And lerne to laboure with lond,
For liflode is swete.
For murthereris are manye leches,
Lord hem amende!
They do men deye thorugh hir drynkes,
Er destynee it wolde.

ed. WRIGHT, 1856, vol. i., p. 133.

"Pers" in Chaucer's description is the obsolete French word for blueish-grey. Taffata and sendal, which formed the linings of the doctor's garments, were varieties of expensive silk; but though he allowed himself, probably for professional reasons, this extravagance of costume, he was exceedingly careful about his expenditure in other matters: "he was but esy of dispence." The "cloke of Calabre" in Langland is one made of a kind of fur, which is supposed, without any authority, to have derived its name from Calabria. The term, which is of frequent use in old literature, is now applied to the fur of the Siberian squirrel. Whitaker in his edition of *Piers* (p. 143) paraphrases the expression into "cloak of Salerno," perhaps thinking that as Calabria is in Italy the reference was to the School of Salernum.

The doctor is represented carrying a "urinal," and inspecting the secretion which it contains. Urinal was the name applied to the receptacle in which the urine was placed when the physician pretended, by a mere inspection, to diagnose the complaint from which a patient was suffering. The special marks which showed that Valentine was in love were so obvious, that Speed said to him, they "shine through you like the water in an urinal, that not an eye that sees you but is a physician to comment on your malady" (*Two Gentlemen of Verona*, ii. 1, 40–3). This piece of humbug was raised to the position of a fine art, for those who practised it would first show their ingenuity by learning indirectly what were the symptoms of the malady of the patient, and then achieve a reputation by declaring that the urine showed that the sick person had such symptoms. Not even the denunciations of Linacre, or a statute of the College of Physicians which declared that no one connected with that institution should upon such evidence prescribe for a patient whom he had not seen, could put a end to the practice which existed from at least 1230 through several centuries. Shakspere has several references to it; on these some comments were made in the *Journal* for December, 1887.

The way in which doctor and apothecary played into one another's hands does not need much comment. It survived long after Chaucer's time. A good illustration of it may be seen in Bullein's *Dialogue against the Fever Pestilence* (1578), from which an extract was given in this *Journal* for December, 1892. Since those days we have grown so good that of course no instance of the practice exists now.

The employment of astrology ("astronomye") in the treatment of the sick came into Western practice through the Arabians, and reached us, with many other evil things, by way of Italy. Many events of life, including the ad-

ministration of remedies in illness, had, according to the astrologers, to be undertaken, if the result was to be successful, at an opportune moment, which was determined by consideration of the so-called planetary influences current at the time with those which ruled at the birth of the person concerned. No doubt the special love of gold with which Chaucer's doctor was possessed would account for the delay which occurred before he could "fortunen the ascendent" for his patient, or in other words declare that the lucky moment had arrived when there was a favourable influence of the ascending stars and planets. The "images" were the astrological designs by which the doctor represented the favourable aspect of the heavens. A drawing of one such image is given in *Good Words* for this month in an article by Sir Robert Ball on Kepler, who is a conspicuous example of a man with a scientific mind tainted with the absurdities of astrology. It might have been thought that such superstition had been outgrown now by all except the buyers of cheap almanacs, in which the pretension is made of foretelling future events; but we are told that astrologers are doing a good trade in England at the present day, and that the house of one of them "is visited by many leading people in society, while more than one of our commercial magnates and Stock Exchange speculators seek his advice" (*Review of Reviews*, March, 1893, p. 287). Only within the last few weeks I received the prospectus of a half-guinea book, which treats of natal astrology, and which contains chapters on "The Health of the Native" and "Diseases caused by the Planets." One of the authors of the book offers to supply "directions" for periods from one to fifty years, at prices ranging from 3/- to £5. Those who assert that the world is still in its childhood verily have some justification for the statement.

In the last line but one of the description is probably a reference to the "gold cure" of the middle ages. There was a widespread belief that gold taken internally would preserve youth and health, and heal all diseases. The writers of the time have many words about "aurum potabile" and its supposed virtue. Shakspere has one or two references to it (2 *Henry IV.*, iv. 4, 161–3; *All's Well that Ends Well*, v. 3, 101–4).

Chaucer's doctor was careful of his bodily welfare, and wisely enjoined for himself a very rigid and spare diet; but he seems to have been somewhat regardless of his spiritual growth.

The reading which had helped the doctor to become such an excellent practitioner was extensive, and derived from most of the nations which had contributed to the literature of medicine. He would have not had much difficulty in acquiring what there was to know of the old Æsculapius, for no literature is attributed to his name, and of his doings nothing is recorded except in a few notices in Greek Poetry. Although some writers believe him to have been an actual personage, he is usually regarded as the mythical son of Apollo and Coronis. His sons Machaon and Podalirius are well known, the former especially, as attending to the wounds of the combatants before Troy. Their services were highly valued. In the words of the version by one resident in Bristol:

> For more than a multitude availeth the leech for our need
> When the shaft sticketh deep in the flesh, when the healing salve must be spread.
> *The Iliad of Homer done into English Verse.* By ARTHUR S. WAY. 1877. XI. 514-5.

The deeds attributed to Æsculapius caused his name to be highly honoured. After-generations deified him and built temples in his honour. At these many wonderful cures were of course performed, and those who received benefit left behind them a description of their diseases, to which the priests of the temple added an account of the remedies employed. Those who practised the healing art took their methods from these records, represented themselves to be his descendants, and for some time were known as Asclepiadæ.

For some centuries medicine was largely in the hands of the philosophers, and it was not until 400 B.C. that Hippocrates became almost its first systematic practitioner. His writings were considerable and, characterised by wide powers of observation and a good style, had an enormous influence upon medical science. Several complete Greek and Latin editions of the works attributed to him were published in the sixteenth century, and these have been often reprinted. In the Bristol Medical Library will be found Latin

versions dated 1620 and 1657, together with the Old Sydenham Society's well-known 1849 issue of his "genuine" writings, translated by Francis Adams. There have been countless commentaries on his works. Of sections of his writings the most frequently issued have been the "Aphorisms," of which there are editions in Greek, Latin, French, Spanish, English, Dutch, and German. We have Greek, Latin, and English versions bearing dates of 1623, 1684, 1735, 1736. We have also articles on Hippocrates by Warburton Begbie (*Brit. M. J.*, 1872, vol. ii.), Matthews Duncan (*Edin. M. J.*, vol. xxii., 1876), G. H. B. Macleod (*Brit. M. J.*, 1877, vol. ii.), and Finlayson (*Glasg. M. J.*, vol. xxxvii., 1892).

Dioscorides was a physician of Asia Minor about the time of Nero (54–67 A.D.). He paid special attention to Materia Medica, on which he wrote a treatise. This and his other works dealing principally with therapeutics were printed in Greek and Latin in the fifteenth century and afterwards. His editors, who have been numerous, have by their comments added much to his original writings. In the Bristol Medical Library there is a 1598 Latin copy of all his known works. The mediæval doctor, always an ardent therapeutist, was largely indebted to Dioscorides, who obtained an allegiance in the department of Materia Medica as great and lasting as did Galen in the sphere of general practice.

Towards the end of the first century of the Christian era, Rufus of Ephesus was distinguished more as an anatomist than a doctor. His work was highly spoken of by other writers, but as only fragments of it are extant it is not likely that Chaucer's doctor derived much assistance from it.

In the second century there was born at Pergamum, in Asia Minor, one who was destined to have a larger influence on matters medical than any other writer before him except Hippocrates, and the magic of whose name lasted like a spell over the healing art for centuries. Even in the reign of Elizabeth it was thought rank heresy to impugn his authority. (See *The Roll of the Royal College of Physicians of London*, 2nd ed., 1878, vol. i, p. 62). Galenical or vegetable pharmacy was regarded almost as a sacred thing, and received no serious addition or opposition till Paracelsus at the beginning of the sixteenth century ventured to introduce mineral substances and chemical combinations into the Materia Medica. Galen was a voluminous author, and numerous large editions of his works, and commentaries on them, are in existence. We have in our library a five volume Greek version of his complete works, printed in 1538; and articles concerning Galen or his writings, by Kidd (*Tr. Prov. M. & S. Assoc.*, vol. vi., 1837), an anonymous writer (*Lond. M. G.*, 1844, vol. i), Gasquet (*Brit. & For. M. Chir. Rev.*, vol. xl., 1867), Macleod (*Brit. M. J.*, 1877, vol. ii.), and Finlayson (*Brit. M. J.*, 1891, vol. ii.).

In the literature of the Doctor of Physic there is now a great chronological gap. In the year 792 begun the reign of the Caliph Haroun Al Raschid, who, following in the steps of his predecessors in encouraging the progress of literature, commissioned Mesue, who there is reason, from the title of one book, to believe was also known by the name of John Damascene, to translate Greek scientific works into his own language. He could not, however, have done much for the medical pilgrim to Canterbury; for although his own works are quoted by later writers, there is, except the one book to which I have referred, nothing that can with certainty be attributed to him.

There is much doubt as to the Serapion with whose writings Chaucer's doctor was acquainted. There was a Serapion of Alexandria whom Celsus mentions. The earlier of the two Arabian physicians of the same name lived at the beginning of the ninth century and was principally a compiler. His work found two Latin translators. The later Serapion, who died about 1070, left a work on Materia Medica, of which Latin editions were printed in the fifteenth and sixteenth centuries.

Rhazes, who was born in 852, was one of the most celebrated of the Arabian physicians. He had wide scientific knowledge, and a power, exceeding that of his predecessors, of presenting an orderly arrangement of ascertained facts which he accumulated in many works, accompanied by the record of his own observation of cases. He is now mainly known by his treatise on Small-pox, which, after going through several Latin and French editions from the end of the fifteenth century onwards, was translated into English by Mead in

1747. It was also issued by the Old Sydenham Society, translated from the original Arabic by Dr. Greenhill. Both these editions are in the Bristol Medical Library.

Haly, known better as Haly Abbas, was one of the leaders of Arabian medicine, and on account of his great learning was surnamed "Magus." In the latter half of the tenth century he wrote a comprehensive work dealing with the whole subject of medicine. It was translated into Latin in 1127, and was printed first in 1492 and again more than once in the sixteenth century.

Avicenna, whose name is more familiar perhaps than that of any other Arabian doctor, was born in 980. In early life he achieved a great reputation for proficiency in literature and mathematics, but seems to have wasted his great abilities by frivolities of life, and in almost entirely compiling from previous writers. Yet his works, especially his *Canon Medicinæ*, had a great influence upon his successors, and were authorities in medicine till quite the middle of the seventeenth century. They were first printed in Arabic, and afterwards in Latin.

Having given so much attention to medicine as expounded by the Arabs, it was to be expected that the Chaucerian doctor would bestow some study on the writings of the man who did most to introduce Arabian medical thought and practice into Europe. Constantinus, surnamed Africanus from the fact that he was born in Carthage, who had spent much of his life in the East, became in the latter half of the eleventh century identified with the School of Salernum, which was just then rising into prominence as a centre of medical teaching of university character. It exercised a long influence over medical life in general, and lived till 1811. In its corporate capacity it issued several works, the principal of which were a cyclopædia of medicine and surgery and the well-known *Schola Salernitana*, a dissertation on the preservation of health issued as a poem in Latin verse, and which enjoyed a popularity for centuries. It was first printed in 1474. Salernum is also celebrated for having produced several women doctors. Chaucer refers again to Constantine in "The Merchant's Tale," where an old man is represented as having taken freely of aphrodisiacs

> And many a letuary had he ful fyn,
> Such as the cursed monk daun Constantin
> Hath writen in his book *de Coitu*.

Constantine's complete works were printed in Latin in 1536.

The doctor in the *Canterbury Tales* had a great fancy for Arabian literature. Averrhoes, who added little to the store of medical knowledge, was a man of great intellectual attainments; he was more a theoretical than a practical physician. He lived in the second half of the twelfth century. Some of his medical works were translated into Latin and afterwards printed; but he is principally famous for his philosophic treatises.

Montpellier became almost as famous as Salernum as a school of medicine; and in the person of Bernard de Gordon supplied an authority for Chaucer's companion. Bernard was teaching there from 1285 to 1307. His most famous book was *Lilium Medicinæ*. His collected works were first printed in 1487.

Gilbertus Anglicus, whose date is not exactly known, but which was about the end of the thirteenth or beginning of the fourteenth century, was the first English author whose works have survived till the present day. Among them is a Compendium of Medicine, which was first printed in Latin in 1510. He is said to have derived his inspiration mainly from the Salernian school.

About 1280 was born a physician who Dr. Norman Moore *(Dict. Nat. Biog.)* thinks may have been the man whom Chaucer had in his mind's eye when he described his Canterbury pilgrim, who the Host considered was "a propre man and y-lik a prelat." He became known as John of Gaddesden, and went to Merton College, Oxford. As Chaucer was page in the household of Lionel, son of Edward III., and as Gaddesden attended some part of the Royal family, it is probable that they saw one another. About 1307 Gaddesden wrote his famous book, *Rosa Medicinæ*, of which there still exist many MSS. It was printed in 1492, and more than once in the fifteenth century. He died in 1361, having held a prebendal stall in St. Paul's. At that time Chaucer was probably about 21. Dr. Freind's account of Gaddesden (*Hist. Physic*, II. 277–91) shows that he was a very shrewd practitioner, but not one of whom we can be at all proud.